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GPO PRICE $ _____

CFSTI PRICE(S) $ _____

Hard copy (HC) 4.00

Microfiche (MF) .75

ff 653 July 65

Post Office Box 1197
Eau Gallie, Florida
Phone: 305 • 727-0660

D. BROWN ASSOCIATES, INC.

PHOTOGRAMMETRIC STRUCTURAL CALIBRATION

REPORT NO. 17

29 June 1965

PHOTOGRAMMETRIC CALIBRATIONS OF THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION ROSMAN #1 85-FOOT PARABOLIC ANTENNA IN STATIC AND DYNAMIC MODES (AXIS AT 70-DEGREE ZENITH DISTANCE)

PREPARED FOR

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

GODDARD SPACE FLIGHT CENTER

GREENBELT, MARYLAND

CONTRACT NO. NAS5-9783

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SYNOPSIS OF KEY RESULTS OF EACH CALIBRATION

SYNOPSIS OF KEY RESULTS OF STATIC CALIBRATION

(AXIS AT 70 - DEGREE ZENITH DISTANCE)

Diameter of Dish.....	85 feet
Theoretical Focal Length.....	36.000 feet
Calibrated Focal Length.....	36.016 feet
Root Mean Square Deviation of Surface from True Paraboloid.....	.0045 feet
Maximum Positive Deviation from Best Fitting Paraboloid.....	.0146 feet
Maximum Negative Deviation from Best Fitting Paraboloid.....	-.0134 feet
Mean Error of Closure of Photogrammetric Triangulation.....	1.33 sec. of arc
Number of Target Points Triangulated.....	340

Root Mean Error of Target Point Triangulations

Sigma x = .0012 feet

Sigma y = .0013 feet

Sigma z = .0014 feet

Proportional Accuracies of Target Point Triangulations

Sigma x/85 feet = 1/70,800

Sigma y/85 feet = 1/65,400

Sigma z/85 feet = 1/60,700

SYNOPSIS OF KEY RESULTS OF DYNAMIC CALIBRATION

ACCELERATION RATE 1.0 DEGREES/SECOND^2

(AXIS AT 70 - DEGREE ZENITH DISTANCE)

Diameter of Dish.....	85 feet
Theoretical Focal Length.....	36.000 feet
Calibrated Focal Length.....	36.014 feet
Root Mean Square Deviation of Surface from True Paraboloid.....	.0044 feet
Maximum Positive Deviation from Best Fitting Paraboloid.....	.0127 feet
Maximum Negative Deviation from Best Fitting Paraboloid.....	-.0136 feet
Mean Error of Closure of Photogrammetric Triangulation.....	1.80 sec. of arc
Number of Target Points Triangulated.....	337

Root Mean Error of Target Point Triangulations

Sigma x = .0016 feet

Sigma y = .0017 feet

Sigma z = .0018 feet

Proportional Accuracies of Target Point Triangulations

Sigma x/85 feet = 1/53,100

Sigma y/85 feet = 1/50,000

Sigma z/85 feet = 1/47,200

SYNOPSIS OF KEY RESULTS OF DYNAMIC CALIBRATION

ACCELERATION RATE 0.1 DEGREES/SECOND^2

(AXIS AT 70 - DEGREE ZENITH DISTANCE)

Diameter of Dish.....	85 feet
Theoretical Focal Length.....	36.000 feet
Calibrated Focal Length.....	36.000 feet
Root Mean Square Deviation of Surface from True Paraboloid.....	.0049 feet
Maximum Positive Deviation from Best Fitting Paraboloid.....	.0140 feet
Maximum Negative Deviation from Best Fitting Paraboloid.....	-.0161 feet
Mean Error of Closure of Photogrammetric Triangulation.....	1.76 sec. of arc
Number of Target Points Triangulated.....	334

Root Mean Error of Target Point Triangulations

Sigma x = .0016 feet

Sigma y = .0017 feet

Sigma z = .0018 feet

Proportional Accuracies of Target Point Triangulations

Sigma x/85 feet = 1/53,100

Sigma y/85 feet = 1/50,000

Sigma z/85 feet = 1/47,200

SECTION II.

INTRODUCTION

INTRODUCTION.

This report presents the results of one static and two dynamic photogrammetric calibrations, performed by D. Brown Associates, Inc., on the Rosman # 1 85-foot parabolic antenna located near Rosman, North Carolina.

This report is submitted as fulfillment and completion of the work set forth in Contract No. NAS5-9783, Article II, Section A between the National Aeronautics and Space Administration, Goddard Space Flight Center, and D. Brown Associates, Inc. The photogrammetric theory and techniques employed in these calibrations are based on adaptations and extensions by Duane C. Brown of his earlier derivation of the general solution to the problem of multistation analytical stereo-triangulation. Detailed treatments of the mathematics of the least squares adjustment and error propagation of this solution are available in references (1), (2), and (3).

Three separate calibrations were performed. The first was a routine static calibration. The second and third calibrations were accomplished while the dish was slewing along its X axis at accelerations of 1 degree /second^2 and 0.1 degrees/second^2 respectively. These calibrations were the first to be performed while the antenna was in a dynamic mode. The nominal orientation of the antenna for all calibrations was 270 degrees from North at a zenith distance of 70 degrees.

Raw data for each calibration consisted of two photographs of the antenna taken simultaneously with special 480 mm focal length metric cameras from two ground stations.

These photographs, taken on ultra-flat, one-quarter inch thick glass plates coated with a 103-F emulsion, were acquired on April 17, 1965, between 0400 and 0500 EST. The antenna was illumed for all three calibrations by three specially adapted 600 watt-second electronic strobe lights. The camera stations were situated on an arc approximately 220 feet from the antenna in such a manner as to obtain a nominal 90 - degree angle of intersection between the camera axes at the vertex of the antenna. Figures 1 and 2 are contact prints of the photographic plates used for the static calibration, Figures 3 and 4 the dynamic 1 degree/second^2, and Figures 5 and 6 the 0.1 degree/second^2.

Prior to exposure, approximately 600 targets fabricated from 1 mil mylar with an adhesive backing were affixed to the reflector in a predetermined pattern. These targets consisted of a solid white circle one - quarter inch in diameter against a two-inch diameter circular black background. To permit precise scaling, two calibrated 50 - foot Lo-Var steel tapes with targets affixed at both ends were utilized. One tape was stretched across the antenna under controlled tension while another was suspended from a crane immediately adjacent to the antenna.

Figure 7 presents a graphical display of target point distribution and identification numbers for points on the surface of the dish. A number of special targets were placed at various locations on the surface and feed support structure of the antenna. Target points # 512 through # 521 inclusive are located on the west quadripod leg. Points # 900 through # 927 inclusive were shimmed targets situated on the surface of the dish and points # 600 through # 627 were regular targets placed adjacent to the shimmed targets. Shimmed targets # 928 and # 929 were on the feed box with points # 550 through # 553 inclusive. In addition, alternate targets were placed next to the regular targets adjacent to the shimmed targets on the outer panels of the antenna. These alternate targets were used when the shimmed targets obstructed the regular targets. The alternate targets used were # 1003, # 1039, # 1042, and # 1600. They are identified in Figure 7. Figures 8 and 9 describe the locations of points on the feed box and quadripod leg respectively.

The plates were processed under controlled conditions and proved to be of good quality. The plates were measured on a modified Mann 422-C optical comparator and the resultant coordinates of the target images, corrected for comparator errors and lens distortion, were processed through the rigorous, least squares analytical stereo-triangulation adjustment on an IBM 1620 electronic computer. These solutions yielded root mean square errors for the plate residual vectors as follows:

Static	=	3.1 microns,
1 degree/second^2	=	4.1 microns,
0.1 degree/second^2	=	4.1 microns.

These are equivalent to angular closures of 1.33, 1.80, and 1.76 seconds of arc respectively.

The approximately one micron difference in the RMSE of plate residual vectors is due to a slightly better image quality on the photographic plates used in the static calibration. When the antenna was in position for the static calibration, the strobe light was flashed several times in succession. This abundance of light permitted the camera lenses to be stopped down to f/32 during these exposures. Obviously this technique could not be utilized for the dynamic calibration exposures. Thus the lower f stop on the static exposures resulted in greater depth of focus and superior image quality over the entire surface of the antenna.

The tabulated results (Sections 7, 8, and 9) have three data tables for each calibration. Table I contains the triangulated X, Y, Z coordinates of the target points and their associated standard deviations. These coordinates have been scaled and are referred to a Cartesian system origined at the computed vertex of the antenna with the Z axis normal to the antenna at the vertex (thus the Z axis is coincident with the axis of the best-fitting paraboloid of revolution). The positive quadrant of the YZ plane passes precisely through target # 2 and the negative quadrant of the XZ plane passes approximately through target # 38. The root mean square of the standard deviations of the triangulated target points for each calibration is:

	sigma X	sigma Y	sigma Z,
Static	.0012 feet	.0013 feet	.0014 feet,
1 degree/second^2	.0016 feet	.0017 feet	.0018 feet,
0.1 degree/second^2	.0016 feet	.0017 feet	.0018 feet.

Since the diameter of the dish is 85 feet, these are equivalent to proportional accuracies of :

	sigma X	sigma Y	sigma Z,
Static	1/70,800	1/65,400	1/60,700,
1 degree/second^2	1/53,100	1/50,000	1/47,200,
0.1 degree/second^2	1/53,100	1/50,000	1/47,200.

The plate coordinate residual vectors from each camera for each triangulated point are tabulated in Table 2. These vectors represent the differences between the projection of each triangulated point onto the plate and the measured coordinates of the image of this point on the plate.

The final X, Y, Z coordinates of each target point and their associated covariance matrix were utilized to determine the paraboloid of revolution which, from a statistical sense of minimum variance, best fitted the array of triangulated target points. Table 3 lists DX, DY, DZ the X, Y, Z components of the departures of each triangulated target point from the best fitting paraboloid. Subtraction of DX, DY, DZ from X, Y, Z respectively would adjust a triangulated point to the surface of the paraboloid. Table 3 also lists the perpendicular distance, D, from each target point to the best fitting paraboloid. The root mean square

perpendicular departure of the static calibration was .0045 feet. The dynamic 1 degree/second^2 and the 0.1 degree/second^2 calibrations had values of .0044 and .0049 respectively. The focal length and coordinates of the vertex of the best fitting paraboloid for each calibration is discussed in Section 10.

The target point coordinates of both dynamic calibrations referenced to the coordinates of the static calibration are presented in Section 11.

While an effort was made to measure the same target points for each calibration, some are lost due to measuring or data translation. Consequently, data for any given point may be missing and the total number of triangulated points varies slightly from calibration to calibration.

Although these were the first dynamic calibrations performed, the data processing was essentially routine, with one exception, and it had nothing to do with the nature of the calibration. Analysis of the residual vectors from the first stereo-triangulations indicated that the calibrated principal point had been displaced as a result of some physical disturbance to one of the cameras. This problem was overcome, however, by modifying the stereo-triangulation computer program so that the principal point could be mathematically treated as an unknown. Thus, even though it had been displaced in excess of six millimeters, the principal point was successfully recalibrated and a satisfactory solution was obtained.

SECTION III.

CONTACT PRINTS OF CALIBRATION PHOTOGRAPHIC PLATES

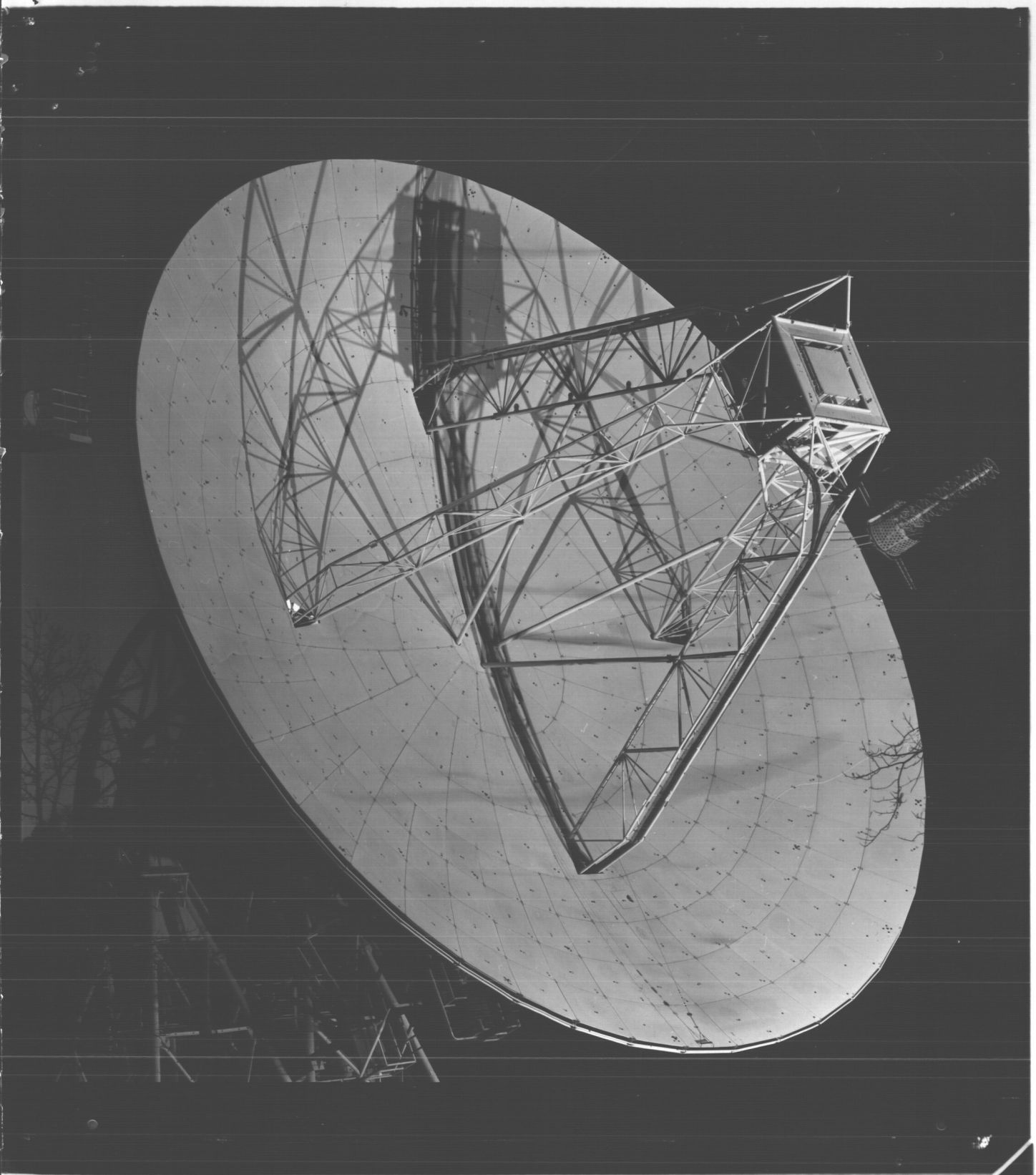
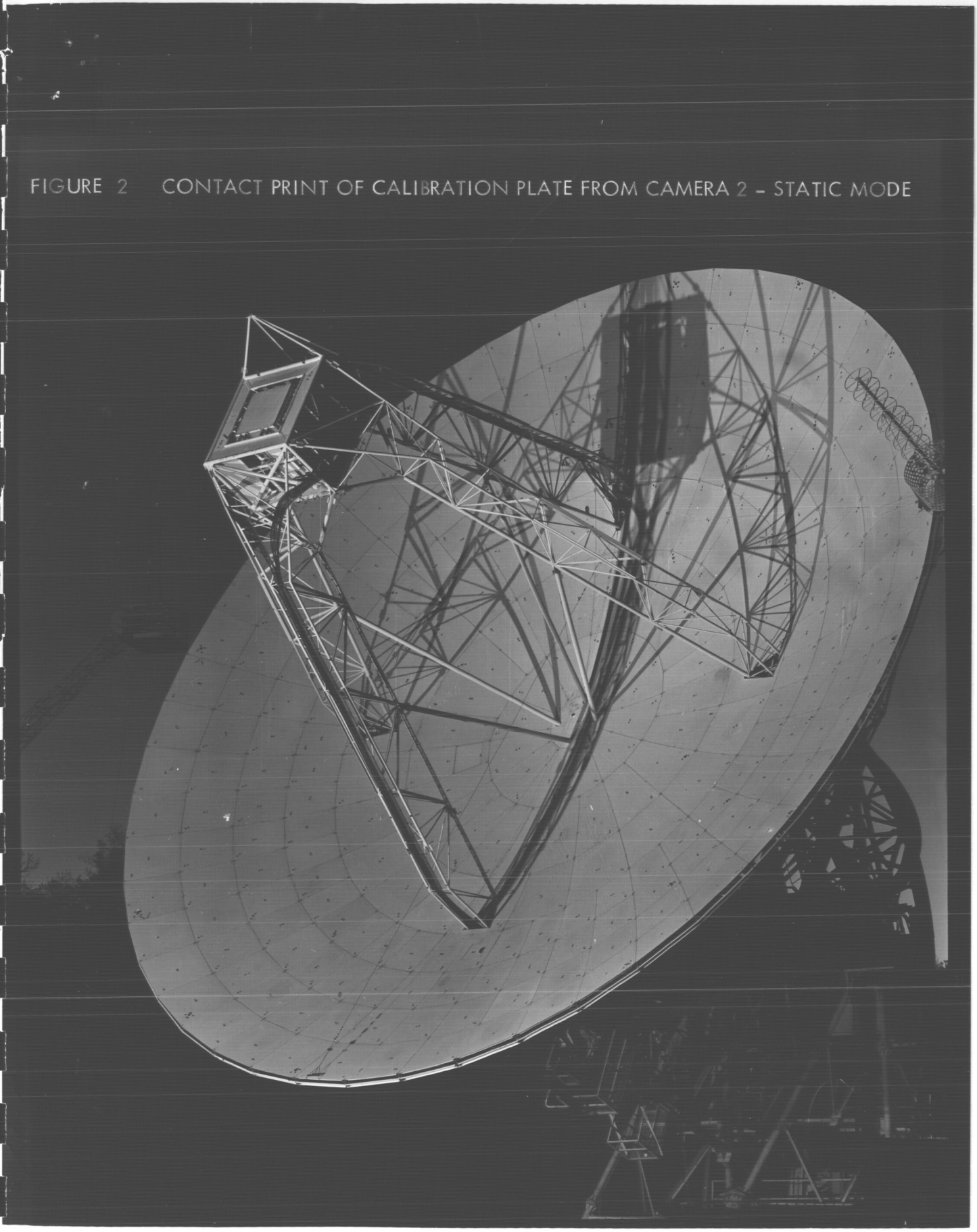


FIGURE 1 CONTACT PRINT OF CALIBRATION PLATE FROM CAMERA 1 - STATIC MODE

FIGURE 2 CONTACT PRINT OF CALIBRATION PLATE FROM CAMERA 2 – STATIC MODE



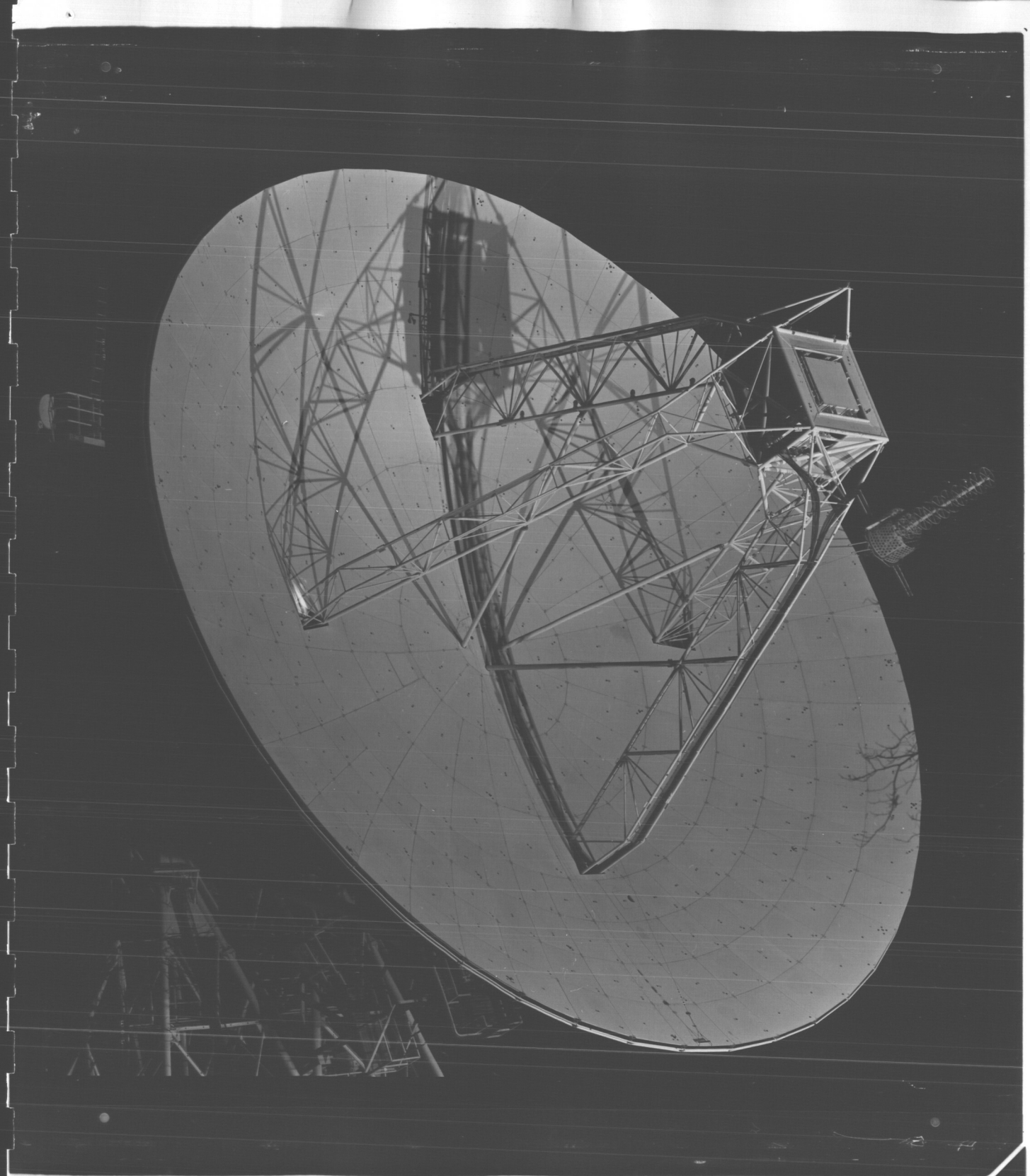
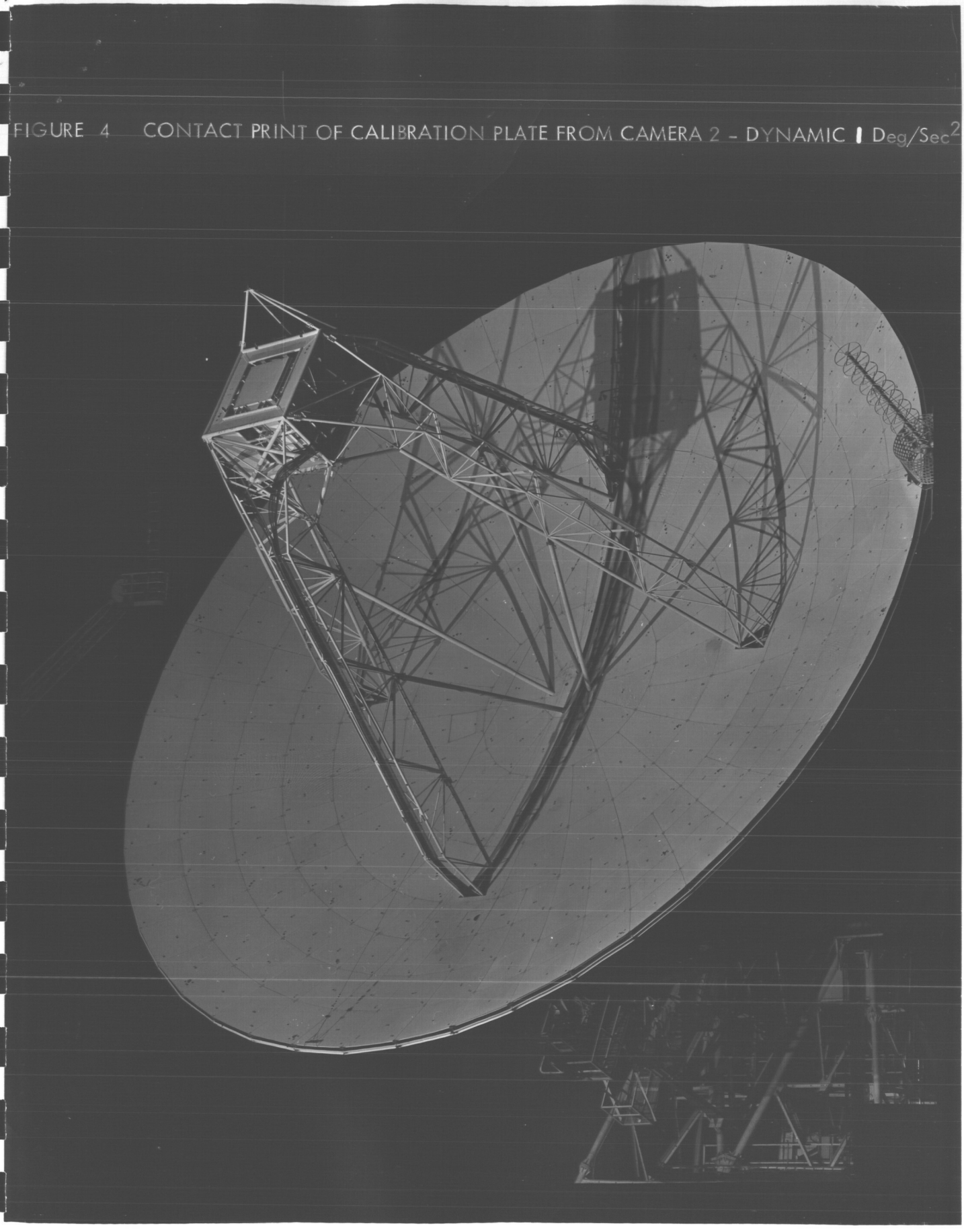


FIGURE 3 CONTACT PRINT OF CALIBRATION PLATE FROM CAMERA 1 - DYNAMIC 1 Deg/Sec^2

FIGURE 4 CONTACT PRINT OF CALIBRATION PLATE FROM CAMERA 2 - DYNAMIC 1 Deg/Sec^2



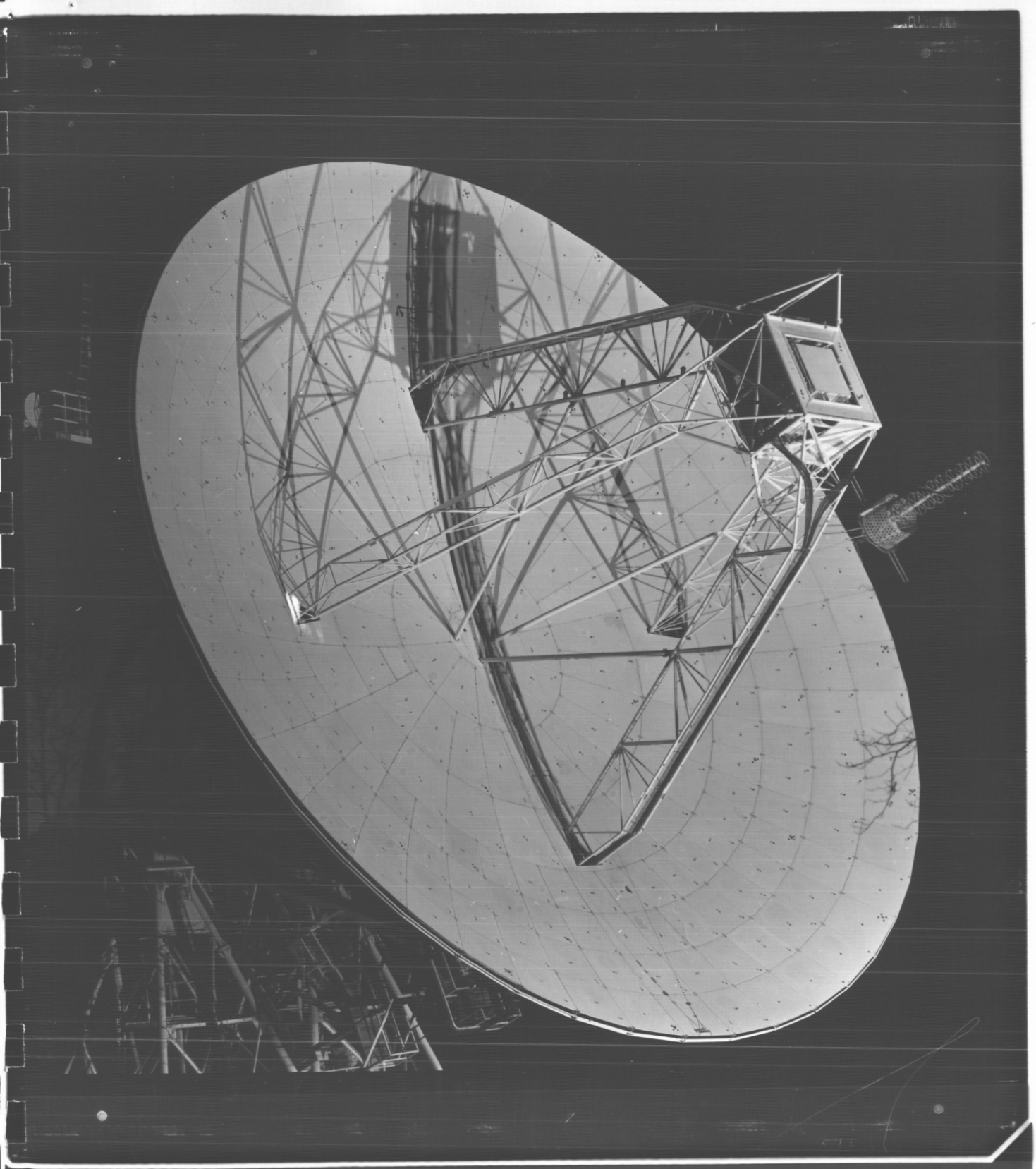
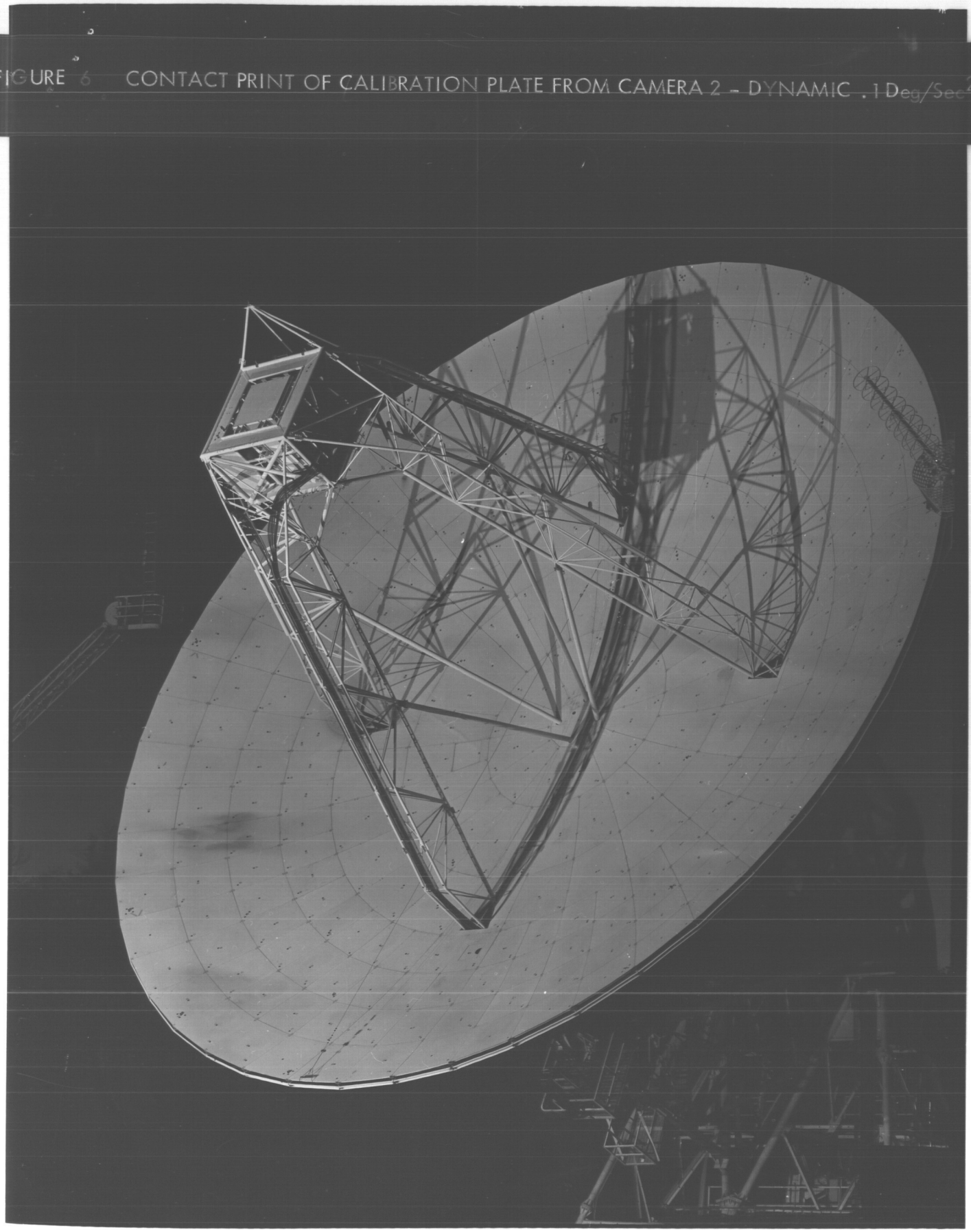


FIGURE 5 CONTACT PRINT OF CALIBRATION PLATE FROM CAMERA 1 – DYNAMIC .1 Deg/Sec^2

FIGURE 6 CONTACT PRINT OF CALIBRATION PLATE FROM CAMERA 2 - DYNAMIC .1 Deg/Sec^2



SECTION IV.

DIAGRAMS OF TARGET POINT DISTRIBUTION ON DISH SURFACE AND FEED STRUCTURE

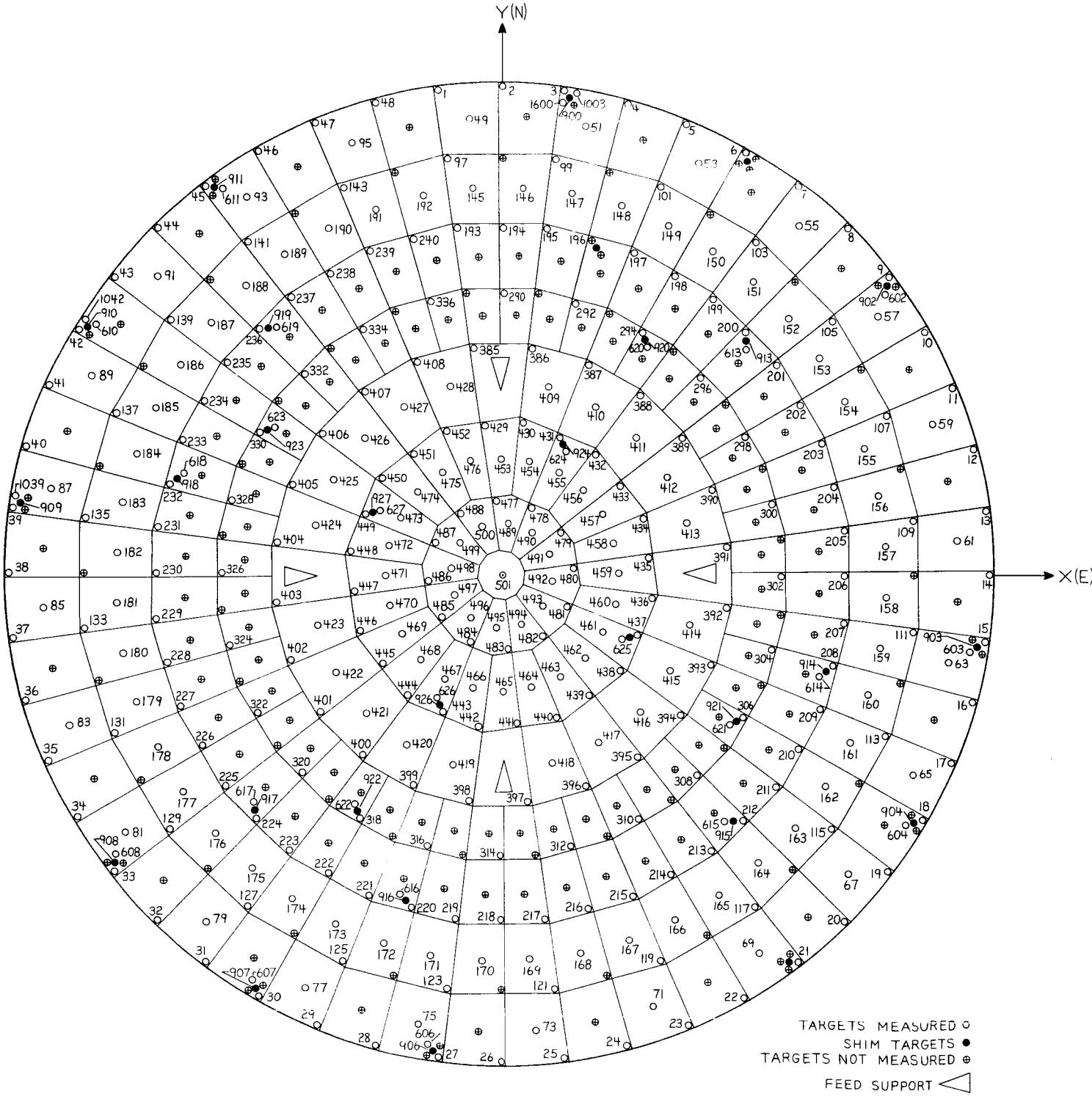


FIGURE 7. POSITION AND IDENTIFICATION OF TARGET POINTS ON THE SURFACE OF THE ANTENNA.

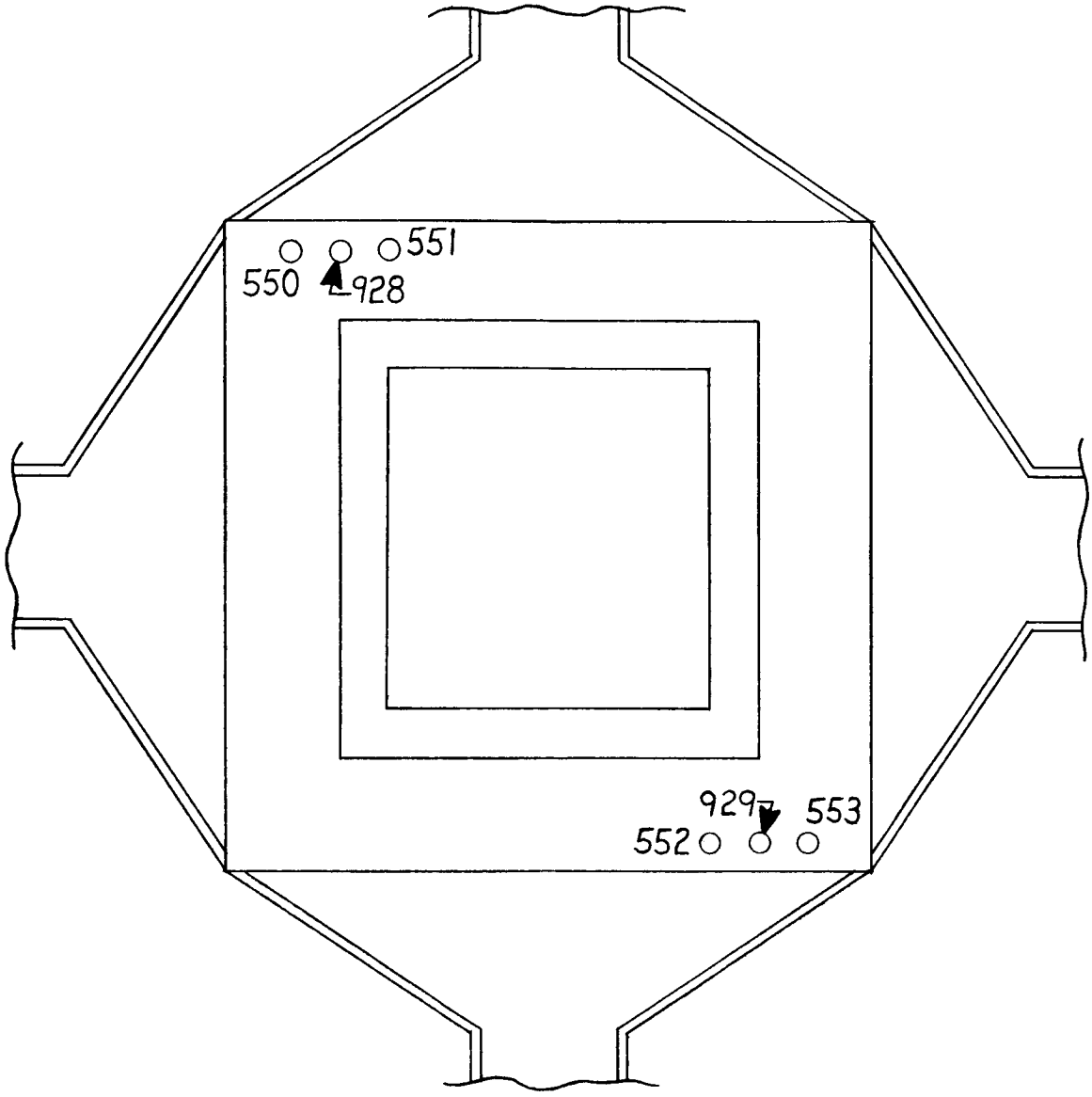


FIGURE 8. POSITION AND IDENTIFICATION OF TARGET POINTS ON THE FEED BOX.

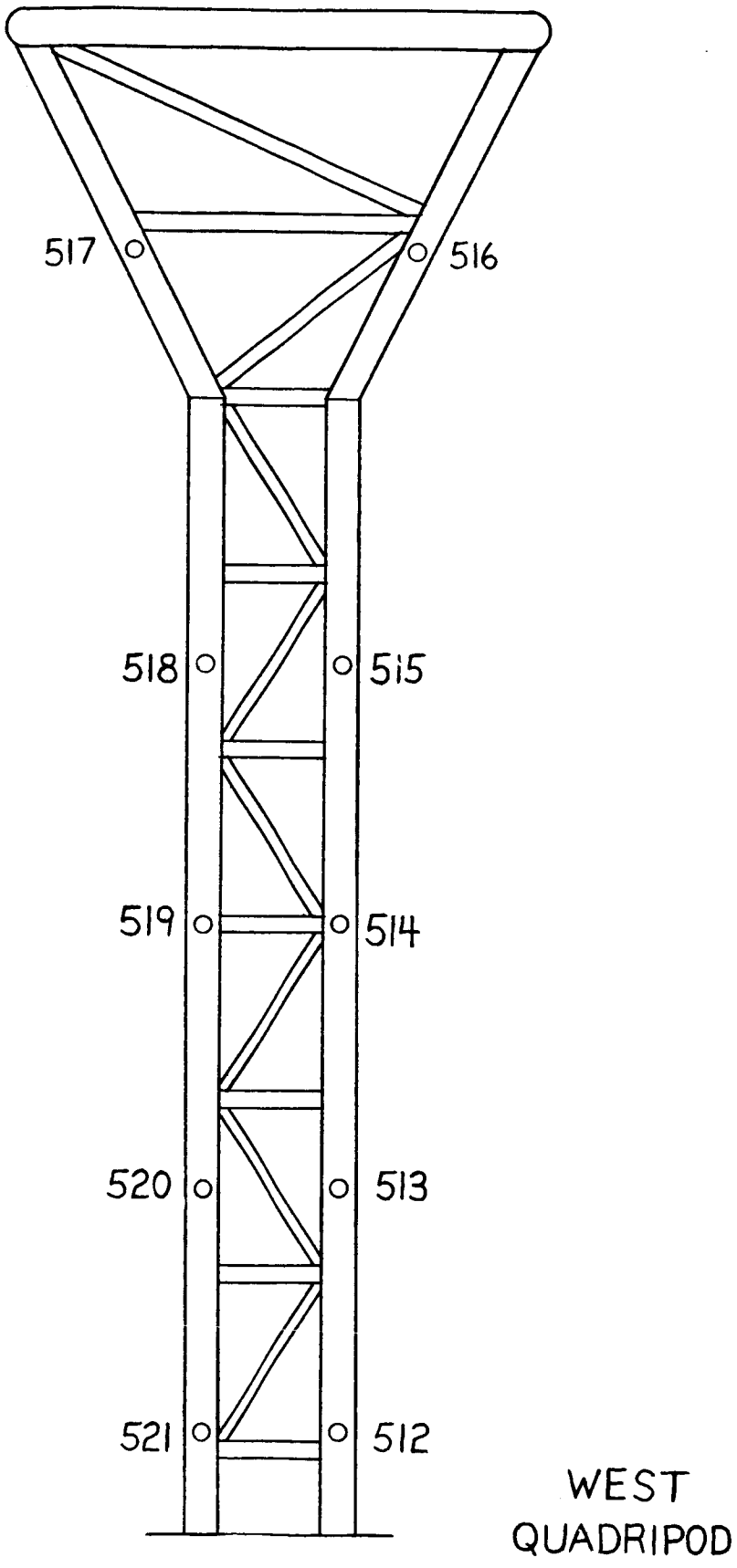


FIGURE 9. POSITION AND IDENTIFICATION OF TARGET POINTS ON QUADRIPOD LEG.

SECTION V.

VECTOR PLOTS OF PERPENDICULAR DEPARTURES OF PHOTOGRAMMETRICALLY TRIANGULATED TARGET POINTS FROM BEST FITTING PARABOLOID OF REVOLUTION

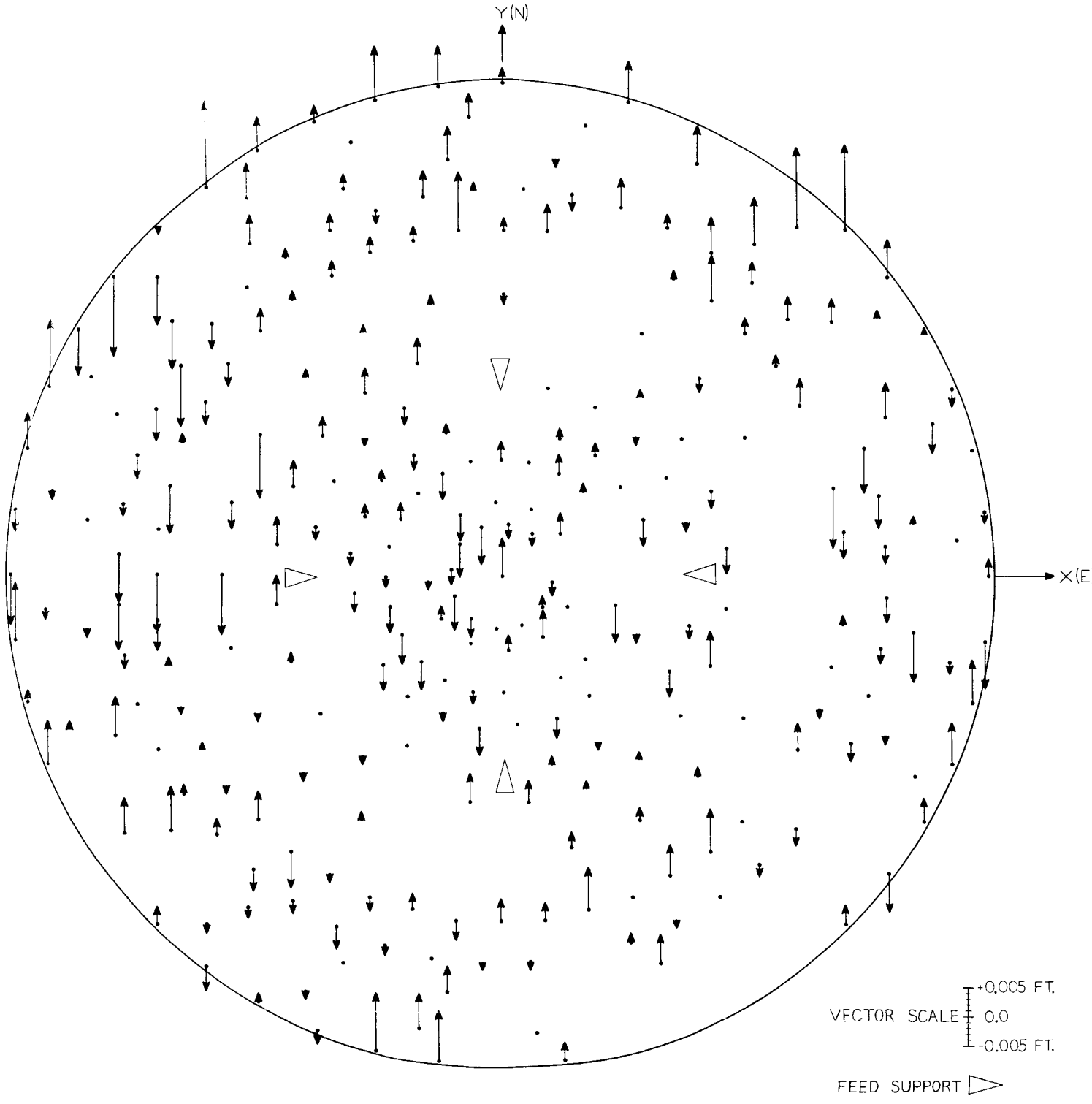


FIGURE 10. PLOT OF PERPENDICULAR DEPARTURES OF PHOTOGRAMMETRICALLY TRIANGULATED TARGET POINTS FROM BEST FITTING PARABOLOID OF REVOLUTION, STATIC MODE. POSITIVE DEPARTURES INDICATED BY UPWARD ARROWS, NEGATIVE DEPARTURES BY DOWNWARD ARROWS.

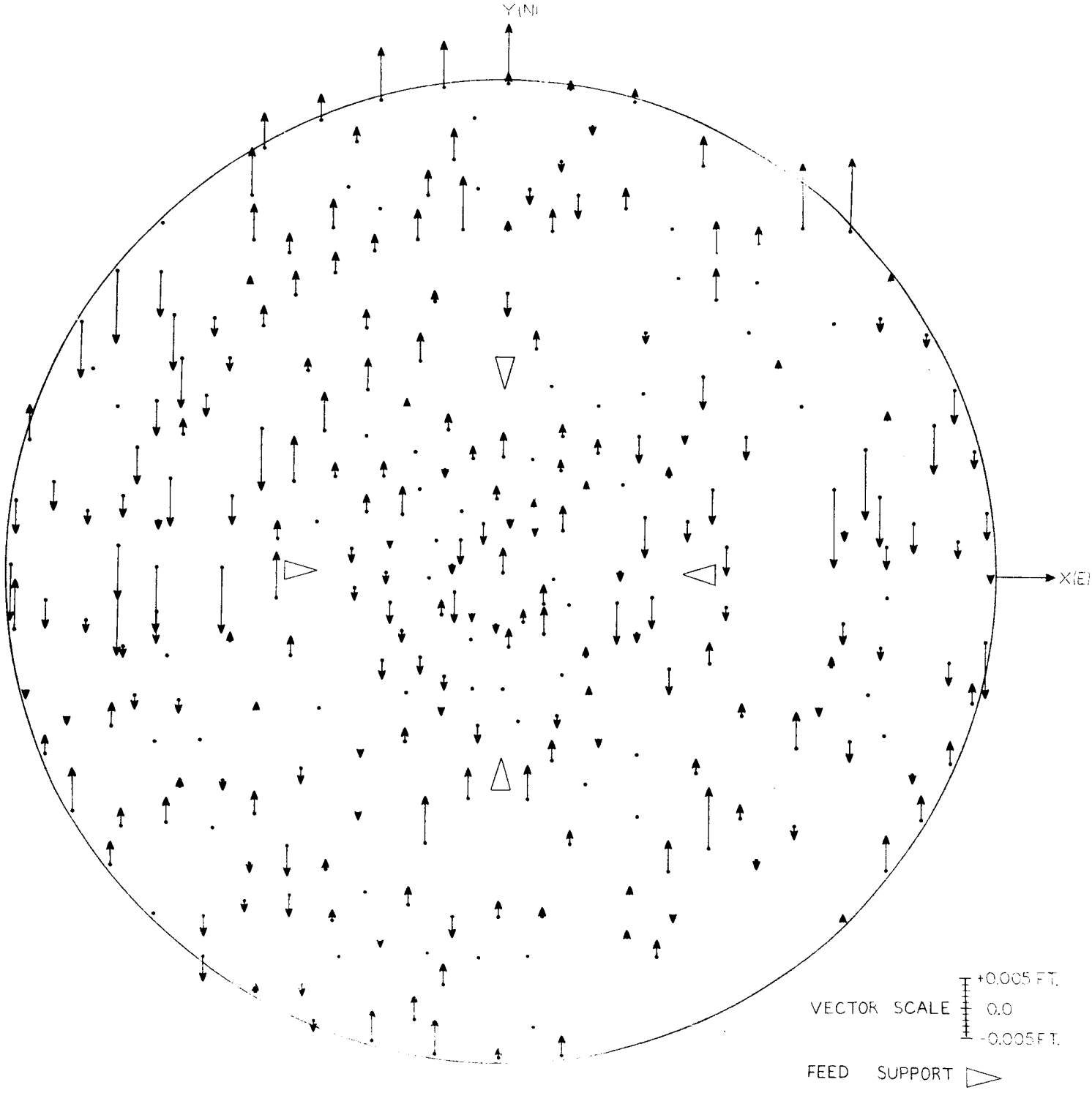


FIGURE 11. PLOT OF PERPENDICULAR DEPARTURES OF PHOTOGRAMMETRICALLY TRIANGULATED TARGET POINTS FROM BEST FITTING PARABOLOID OF REVOLUTION, 1 DEGREE/SECOND^2. POSITIVE DEPARTURES INDICATED BY UPWARD ARROWS, NEGATIVE DEPARTURES BY DOWNWARD ARROWS.

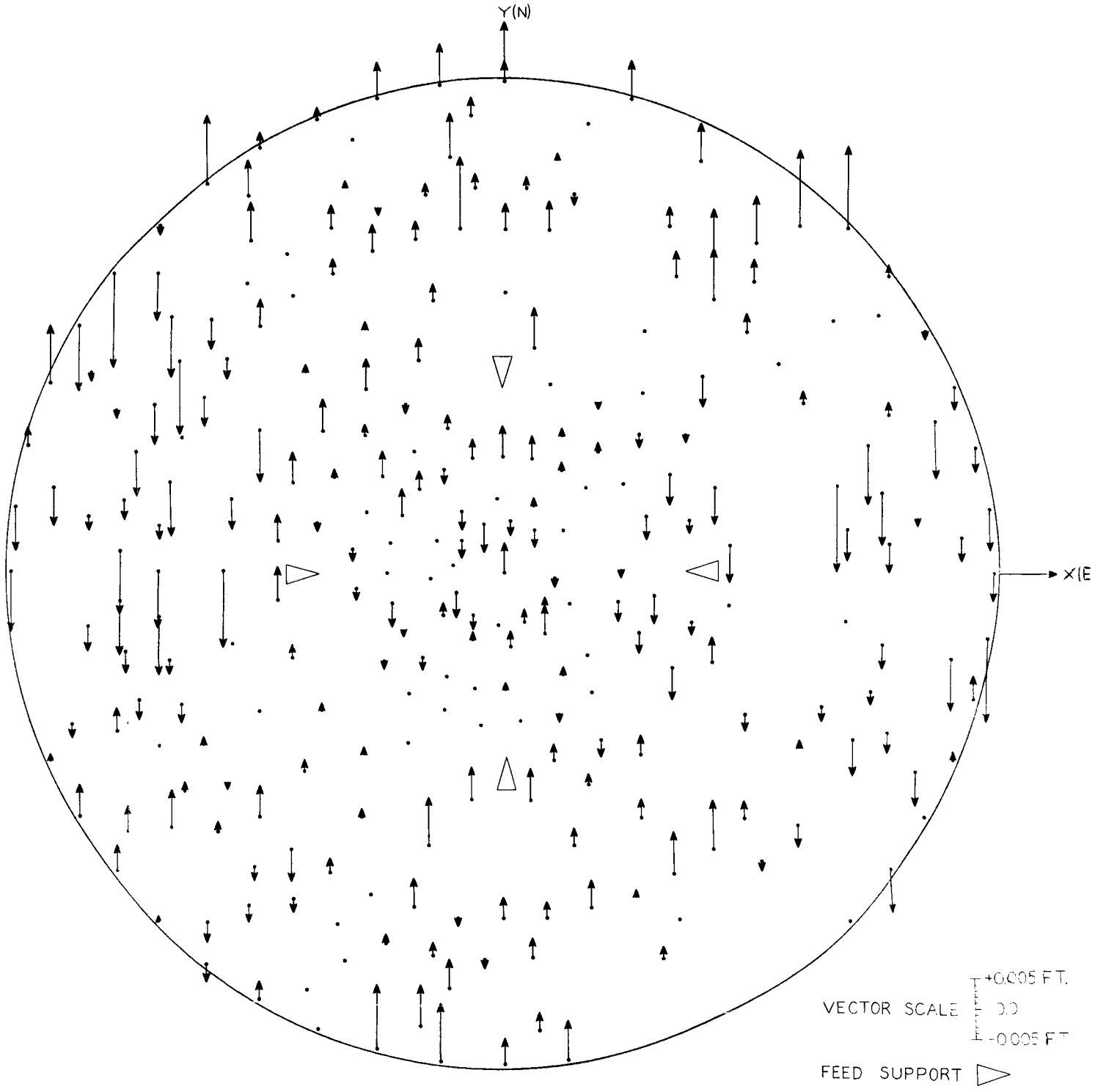


FIGURE 12. PLOT OF PERPENDICULAR DEPARTURES OF PHOTOGRAMMETRICALLY TRIANGULATED TARGET POINTS FROM BEST FITTING PARABOLOID OF REVOLUTION, 0.1 DEGREE/SECOND^2. POSITIVE DEPARTURES INDICATED BY UPWARD ARROWS, NEGATIVE DEPARTURES BY DOWNWARD ARROWS.

SECTION VI.

CONTOUR MAPS OF ERROR SURFACE

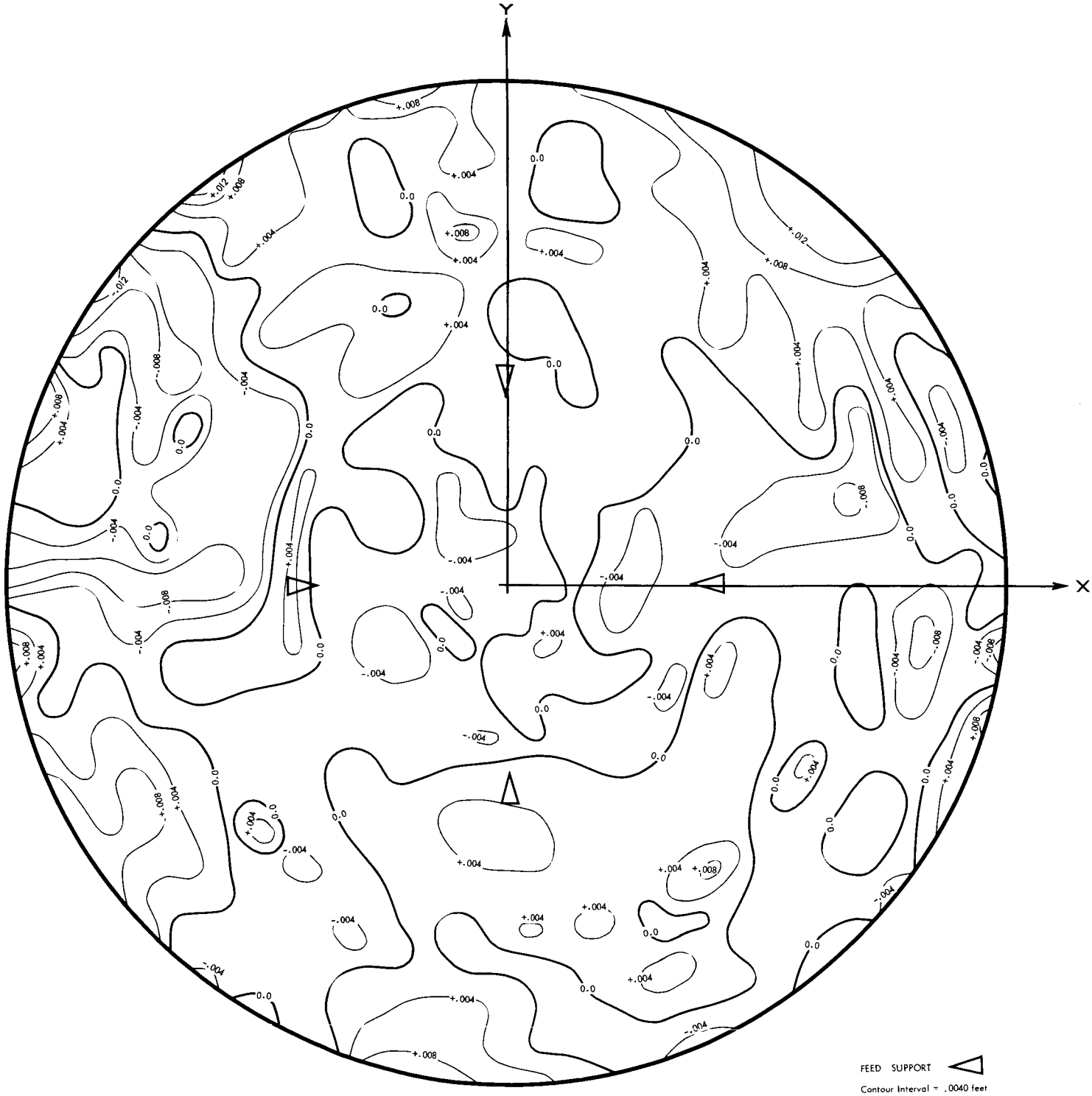


FIGURE 13. CONTOUR MAP OF ERROR SURFACE
STATIC MODE

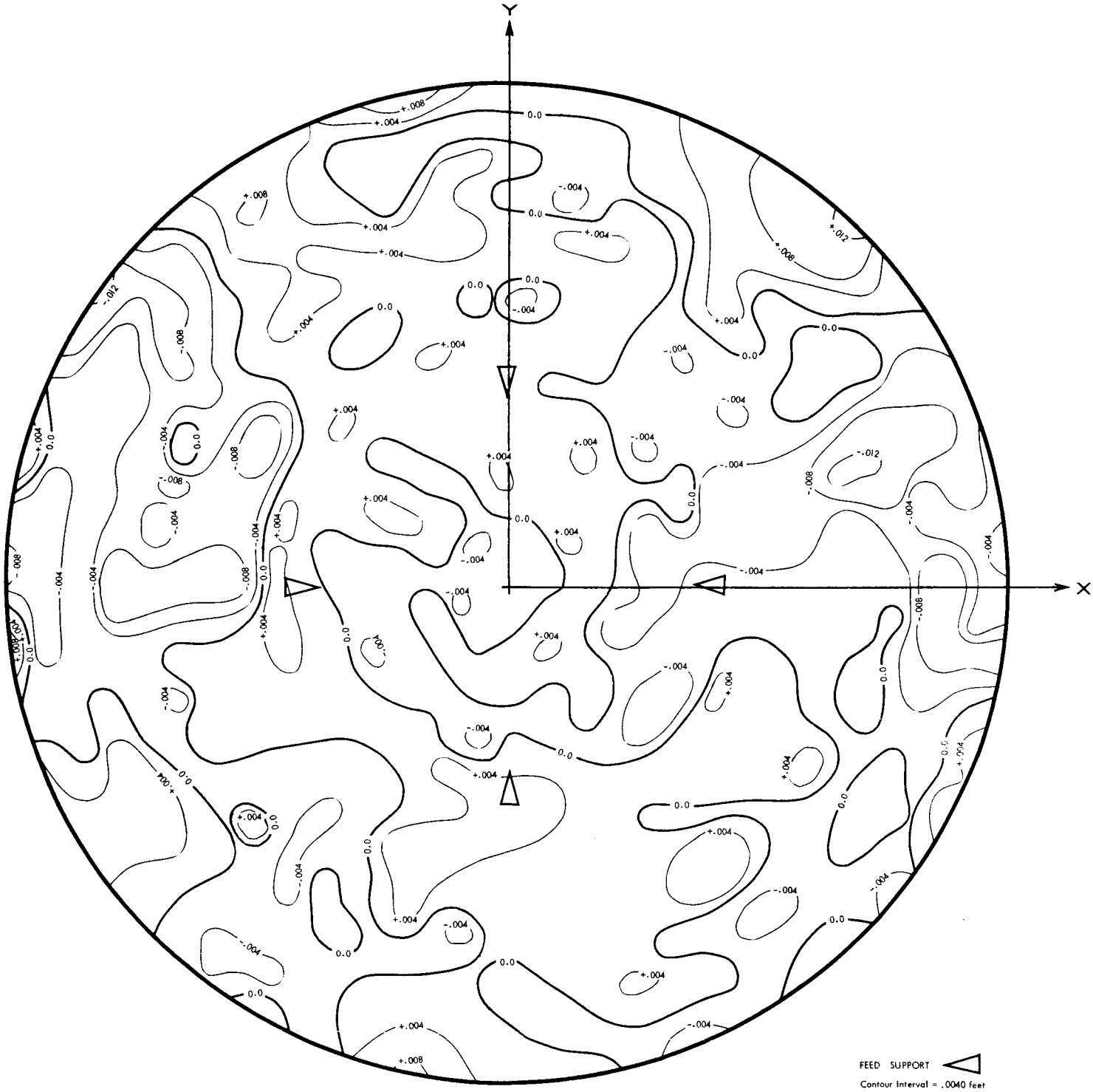


FIGURE 14. CONTOUR MAP OF ERROR SURFACE
1 DEGREES/SECOND^2 ACCELERATION

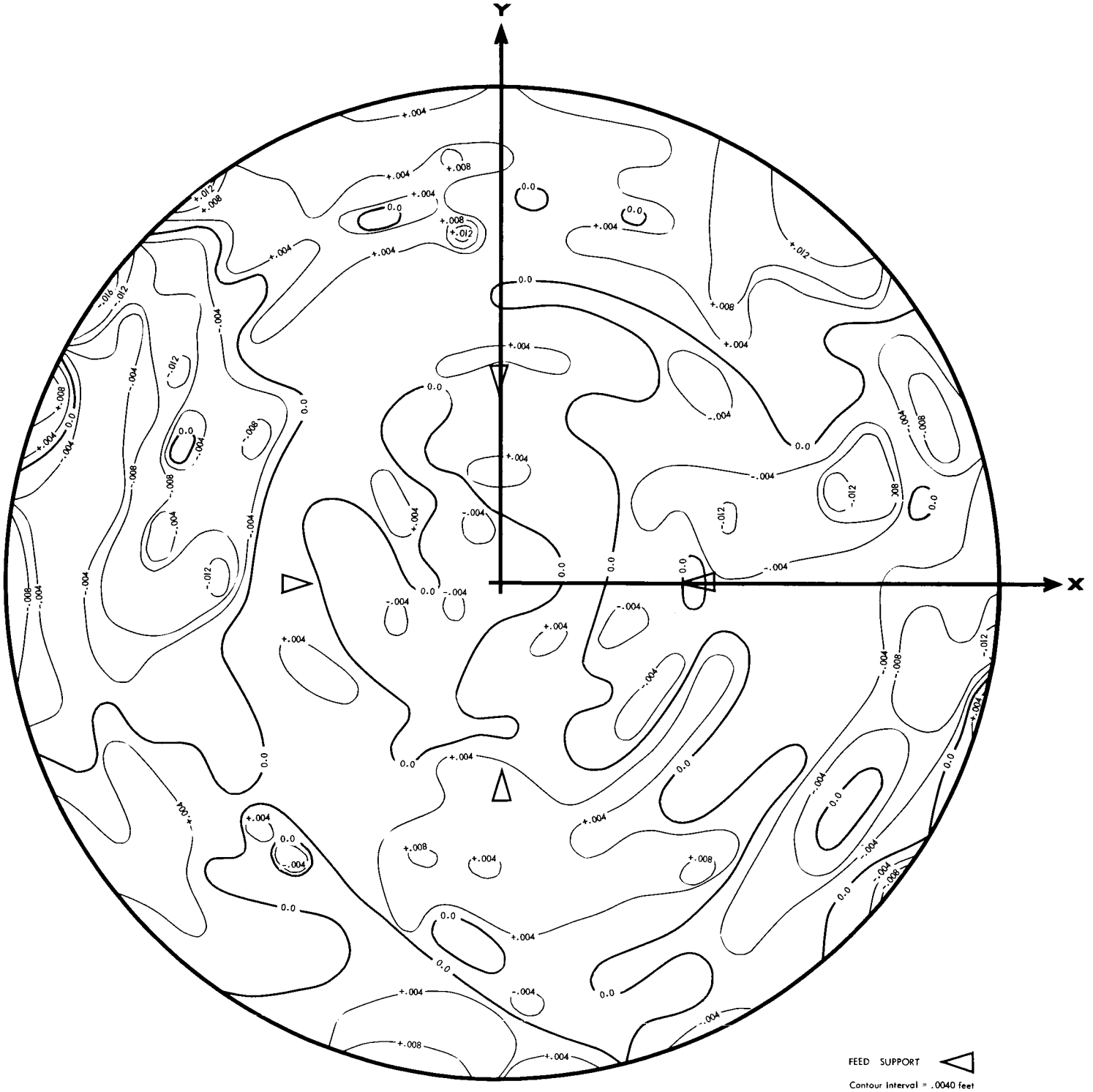


FIGURE 15. CONTOUR MAP OF ERROR SURFACE
0.1 DEGREES/SECOND ^{2} ACCELERATION

SECTION VII.

TABULATED RESULTS OF STATIC CALIBRATION

TABLE 1. COORDINATES AND STANDARD DEVIATIONS OF TRIANGULATED TARGET POINTS. (BASIC)

POINT NO.	X (FEET)	Y (FEET)	Z (FEET)	σX (FEET)	σY (FEET)	σZ (FEET)
1	-5.5183	41.3717	12.0977	.0011	.0013	.0015
2	0.0000	41.7848	12.1199	.0012	.0013	.0015
4	10.8640	40.1797	12.0306	.0012	.0013	.0015
8	29.4398	29.3262	12.0000	.0014	.0014	.0015
9	33.0600	25.2841	12.0291	.0014	.0014	.0015
10	36.2973	20.8038	12.1479	.0014	.0014	.0015
11	38.6293	15.9476	12.1174	.0014	.0014	.0015
12	40.1389	10.4039	11.9326	.0014	.0014	.0015
13	41.1993	5.0120	11.9515	.0014	.0014	.0015
14	41.5481	-.3576	11.9845	.0014	.0014	.0015
15	41.2453	-5.7143	12.0234	.0014	.0014	.0015
16	40.3139	-11.1887	12.1570	.0014	.0014	.0014
17	38.9284	-16.0247	12.3080	.0014	.0014	.0014
18	36.5360	-21.0561	12.3464	.0014	.0014	.0014
19	33.3337	-25.6477	12.2694	.0014	.0014	.0014
20	29.5095	-29.7841	12.2049	.0013	.0014	.0014
25	4.8776	-41.6955	12.2355	.0012	.0013	.0013
27	-5.7334	-41.4468	12.1618	.0011	.0013	.0013
28	-10.9999	-40.5303	12.2530	.0011	.0013	.0013
29	-16.2918	-38.5049	12.1301	.0011	.0013	.0013
30	-21.0616	-36.4857	12.3207	.0010	.0013	.0012
31	-25.7958	-33.0089	12.1764	.0010	.0013	.0012
32	-29.7983	-29.5683	12.2350	.0010	.0013	.0012
35	-38.9169	-16.2926	12.3628	.0009	.0013	.0012
36	-40.6955	-11.0595	12.3457	.0009	.0013	.0012
37	-41.5153	-5.4180	12.1773	.0009	.0013	.0012
38	-42.1281	-.1725	12.3080	.0009	.0013	.0012
39	-41.6600	5.3929	12.2429	.0009	.0014	.0012
40	-40.2938	10.9276	12.1045	.0009	.0014	.0013
41	-38.4701	16.0875	12.0808	.0009	.0013	.0013
42	-36.0833	20.9306	12.0673	.0009	.0013	.0013
43	-33.2252	25.3666	12.1116	.0009	.0013	.0013
44	-29.6843	29.7008	12.2361	.0009	.0013	.0014
45	-25.5071	33.2692	12.2134	.0010	.0013	.0014
46	-20.9473	36.1998	12.1462	.0010	.0013	.0014
47	-16.1423	38.6355	12.1706	.0010	.0013	.0014
48	-10.9561	40.3110	12.1206	.0011	.0013	.0015
49	-3.3973	40.1481	11.2710	.0011	.0013	.0015
51	7.1187	39.4170	11.1342	.0012	.0013	.0015
53	17.1930	36.0655	11.0857	.0013	.0014	.0015
55	25.9645	30.3707	11.0955	.0014	.0014	.0015
57	33.2428	22.5964	11.2141	.0014	.0014	.0015
59	37.8095	13.2774	11.1383	.0014	.0014	.0015
61	40.0959	3.0645	11.2227	.0014	.0014	.0015
63	39.4332	-7.4049	11.1698	.0014	.0014	.0015
65	36.3681	-17.5074	11.3069	.0014	.0014	.0014
73	2.9172	-40.2225	11.2873	.0012	.0013	.0013
75	-7.2557	-39.9375	11.4434	.0011	.0013	.0013
77	-17.2246	-36.4509	11.2798	.0011	.0013	.0013
79	-26.5187	-30.8391	11.4804	.0010	.0013	.0012

TABLE 1. CONT. (STATIC)

POINT NO.	X (FEET)	Y (FEET)	Z (FEET)	X SIGMA (FEET)	Y SIGMA (FEET)	Z SIGMA (FEET)
81	-33.5385	-22.8762	11.4467	.0010	.0013	.0012
83	-38.2606	-13.4970	11.4263	.0009	.0013	.0012
85	-40.0047	-3.4888	11.1905	.0009	.0014	.0012
87	-39.8584	7.5950	11.4248	.0009	.0014	.0013
89	-36.4493	17.0900	11.2474	.0009	.0014	.0013
91	-30.7795	25.8153	11.1909	.0009	.0013	.0014
93	-22.9149	33.1364	11.2715	.0010	.0013	.0014
95	-13.6557	37.7996	11.2105	.0011	.0013	.0014
97	-4.9057	37.1905	9.7725	.0011	.0013	.0015
99	4.9168	37.1212	9.7295	.0012	.0013	.0015
103	22.7578	29.7468	9.7443	.0013	.0014	.0015
105	29.8059	22.6980	9.7451	.0014	.0014	.0015
107	34.8407	14.3091	9.8518	.0014	.0014	.0015
109	37.2665	4.6541	9.7897	.0014	.0014	.0015
111	37.1662	-5.0174	9.7512	.0014	.0014	.0015
113	34.5990	-14.5490	9.7751	.0014	.0014	.0014
119	14.2716	-34.7982	9.8239	.0013	.0014	.0014
123	-5.2588	-37.2412	9.8232	.0011	.0013	.0013
125	-14.6346	-34.6154	9.8036	.0011	.0013	.0013
127	-22.9955	-29.7382	9.8065	.0010	.0013	.0013
129	-29.9519	-22.8384	9.8561	.0010	.0013	.0012
131	-34.8396	-14.2660	9.8453	.0010	.0013	.0012
133	-37.3305	-4.9344	9.8402	.0009	.0014	.0013
135	-37.3093	5.0827	9.8407	.0009	.0014	.0013
137	-34.7609	14.3691	9.8191	.0009	.0014	.0013
139	-29.8794	22.8010	9.7954	.0010	.0014	.0014
141	-22.9539	29.7385	9.8008	.0010	.0013	.0014
143	-14.4448	34.6472	9.7822	.0011	.0013	.0014
145	-2.8907	35.8971	9.0023	.0011	.0013	.0015
146	1.6938	36.0884	9.0583	.0012	.0013	.0015
147	6.5048	35.6392	9.1051	.0012	.0014	.0015
148	11.3563	34.3723	9.0997	.0013	.0014	.0015
149	15.5738	32.5478	9.0381	.0013	.0014	.0015
150	19.5886	30.2025	9.0006	.0013	.0014	.0015
151	23.1383	27.1297	8.8270	.0013	.0014	.0015
152	26.8612	24.2103	9.0795	.0014	.0014	.0015
155	34.0936	11.8578	9.0338	.0014	.0014	.0015
156	35.3174	7.4039	9.0301	.0014	.0014	.0015
157	35.8627	2.5394	8.9670	.0014	.0014	.0015
158	36.0348	-2.1019	9.0373	.0014	.0014	.0015
159	35.4444	-6.9423	9.0499	.0014	.0014	.0015
160	34.0630	-11.4972	8.9707	.0014	.0014	.0015
161	32.6935	-15.7475	9.1357	.0014	.0014	.0014
163	27.3682	-23.6807	9.0871	.0013	.0014	.0014
164	24.0935	-26.9868	9.0813	.0013	.0014	.0014
165	20.2654	-29.8925	9.0524	.0013	.0014	.0014
166	16.3540	-32.2987	9.0955	.0013	.0014	.0014
167	11.9714	-34.2787	9.1520	.0012	.0014	.0014
169	2.7183	-36.3207	9.2061	.0012	.0014	.0013
170	-1.9618	-36.2070	9.1248	.0012	.0013	.0013
171	-6.7372	-35.7360	9.1802	.0011	.0013	.0013

TABLE 1. CONT. (STATIC)

POINT NO.	X (FEET)	Y (FEET)	Z (FEET)	X SIGMA (FEET)	Y SIGMA (FEET)	Z SIGMA (FEET)
172	-11.3437	-34.4896	9.1478	.0011	.0013	.0013
173	-15.8782	-32.8171	9.2210	.0011	.0013	.0013
174	-19.9848	-30.4414	9.2019	.0011	.0013	.0013
175	-23.5205	-27.6245	9.1327	.0010	.0013	.0013
176	-26.9969	-24.3631	9.1822	.0010	.0013	.0013
177	-29.9260	-20.6475	9.1775	.0010	.0013	.0013
178	-32.2945	-16.4484	9.1175	.0010	.0013	.0013
179	-34.1068	-12.2070	9.1090	.0010	.0014	.0013
180	-35.4926	-7.7506	9.1582	.0009	.0014	.0013
181	-36.0090	-2.6737	9.0414	.0009	.0014	.0013
182	-35.9767	1.9920	9.0023	.0009	.0014	.0013
183	-35.3114	6.6385	8.9584	.0009	.0014	.0013
184	-34.2967	11.0845	9.0125	.0009	.0014	.0013
185	-32.3246	15.6813	8.9528	.0009	.0014	.0013
186	-30.2582	19.6686	9.0279	.0010	.0014	.0014
187	-27.5734	23.4478	9.0882	.0010	.0014	.0014
188	-24.0936	26.7601	8.9984	.0010	.0013	.0014
189	-20.3431	29.8076	9.0405	.0010	.0013	.0014
190	-16.4682	32.2498	9.1040	.0010	.0013	.0014
191	-12.2086	34.0196	9.0640	.0011	.0013	.0015
192	-7.5229	35.3235	9.0573	.0011	.0013	.0015
193	-4.3007	32.6803	7.5519	.0011	.0014	.0015
194	-.0181	33.2304	7.6662	.0012	.0014	.0015
195	4.2332	32.8790	7.6321	.0012	.0014	.0015
198	16.6318	28.5756	7.5884	.0013	.0014	.0015
199	20.2423	26.1559	7.5999	.0013	.0014	.0015
200	23.5023	23.2577	7.5903	.0013	.0014	.0015
201	26.3202	19.9420	7.5697	.0014	.0014	.0015
202	28.7368	16.6092	7.6505	.0014	.0014	.0015
204	31.9802	8.4386	7.5803	.0014	.0014	.0015
205	32.8358	4.1350	7.5959	.0014	.0014	.0015
207	32.9382	-4.4183	7.6665	.0014	.0014	.0015
208	31.7713	-9.0400	7.5728	.0014	.0014	.0015
209	30.4618	-12.9557	7.6028	.0014	.0014	.0015
210	28.5163	-16.8400	7.6168	.0014	.0014	.0014
212	23.4060	-23.6037	7.6685	.0013	.0014	.0014
213	20.0442	-26.4889	7.6666	.0013	.0014	.0014
214	16.4534	-28.8824	7.6747	.0013	.0014	.0014
215	12.3403	-30.8105	7.6454	.0013	.0014	.0014
216	8.3787	-32.1823	7.6838	.0012	.0014	.0014
217	4.1187	-32.9567	7.6600	.0012	.0014	.0014
218	-.1990	-33.2341	7.6699	.0012	.0014	.0013
219	-4.4570	-32.9582	7.6742	.0011	.0014	.0013
220	-8.9946	-32.1005	7.7172	.0011	.0013	.0013
221	-12.8872	-30.7466	7.7120	.0011	.0013	.0013
222	-16.7573	-28.6874	7.6602	.0011	.0013	.0013
223	-20.3522	-26.4137	7.7114	.0010	.0013	.0013
224	-23.3170	-23.3644	7.5690	.0010	.0013	.0013
225	-26.4809	-20.2009	7.6988	.0010	.0013	.0013
226	-28.8345	-16.4307	7.6465	.0010	.0014	.0013
227	-30.8010	-12.5313	7.6743	.0010	.0014	.0013

TABLE 1. CONT. (STATIC)

POINT NO.	X (FEET)	Y (FEET)	Z (FEET)	X SIGMA (FEET)	Y SIGMA (FEET)	Z SIGMA (FEET)
228	-32.1392	-8.5009	7.6732	.0010	.0014	.0013
229	-32.8446	-4.2726	7.6091	.0010	.0014	.0013
230	-33.1996	.0217	7.6400	.0010	.0014	.0013
231	-33.1120	4.1895	7.7331	.0010	.0014	.0013
232	-32.0290	8.7768	7.6461	.0010	.0014	.0013
233	-30.6925	12.7183	7.6634	.0010	.0014	.0013
234	-28.8948	16.5618	7.6949	.0010	.0014	.0014
235	-26.2759	20.1295	7.6005	.0010	.0014	.0014
236	-23.6152	23.4072	7.6782	.0010	.0014	.0014
237	-20.0786	26.1922	7.5615	.0010	.0014	.0014
238	-16.5917	28.7224	7.6395	.0010	.0014	.0014
239	-12.5457	30.5461	7.5716	.0011	.0014	.0015
240	-8.6370	31.9801	7.6188	.0011	.0014	.0015
290	.0270	28.6379	5.6902	.0012	.0014	.0015
294	14.4326	24.6952	5.6790	.0013	.0014	.0015
296	20.4332	19.9747	5.6634	.0013	.0014	.0015
298	24.8714	13.9950	5.6513	.0014	.0014	.0015
306	24.5673	-14.1918	5.5868	.0013	.0014	.0015
308	20.0170	-20.6349	5.7378	.0013	.0014	.0014
310	13.7838	-25.0600	5.6798	.0013	.0014	.0014
312	7.0088	-27.9198	5.7544	.0012	.0014	.0014
318	-14.6739	-24.7724	5.7560	.0011	.0014	.0013
320	-20.5488	-20.1159	5.7389	.0010	.0014	.0013
322	-24.9419	-14.0702	5.6920	.0010	.0014	.0013
324	-27.8809	-7.2568	5.7626	.0010	.0014	.0013
326	-28.7143	.3194	5.7135	.0010	.0014	.0013
328	-27.7448	7.6851	5.7487	.0010	.0014	.0013
330	-24.7936	14.4716	5.7095	.0010	.0014	.0014
332	-20.1705	20.2790	5.6799	.0010	.0014	.0014
334	-14.2570	24.8732	5.7065	.0011	.0014	.0014
336	-7.2623	27.7077	5.6963	.0011	.0014	.0015
388	14.6662	18.5406	3.8797	.0013	.0014	.0015
389	18.9928	14.1339	3.8901	.0013	.0014	.0015
390	22.2094	8.6604	3.9403	.0013	.0014	.0015
391	23.4842	2.5450	3.8675	.0013	.0014	.0015
392	23.4585	-3.6033	3.9093	.0013	.0014	.0015
393	21.9353	-9.6652	3.9938	.0013	.0014	.0015
394	18.7150	-14.9619	3.9850	.0013	.0014	.0014
395	14.4600	-19.3640	4.0548	.0013	.0014	.0014
396	8.9268	-22.4424	4.0502	.0012	.0014	.0014
397	2.4710	-23.8673	4.0007	.0012	.0014	.0014
398	-3.6538	-23.6873	3.9933	.0012	.0014	.0014
400	-14.9211	-18.9299	4.0321	.0011	.0014	.0013
401	-19.3416	-14.5327	4.0647	.0011	.0014	.0013
402	-22.3409	-9.1365	4.0471	.0010	.0014	.0013
403	-23.7872	-2.9529	3.9947	.0010	.0014	.0013
404	-23.6874	3.2680	3.9752	.0010	.0014	.0014
405	-22.0913	9.3305	3.9977	.0010	.0014	.0014
406	-19.0643	14.7271	4.0328	.0010	.0014	.0014
407	-14.3014	19.2517	3.9975	.0011	.0014	.0014
408	-9.1206	22.1858	3.9989	.0011	.0014	.0015

TABLE 1. CONT. (STATIC)

POINT NO.	X (FEET)	Y (FEET)	Z (FEET)	X SIGMA (FEET)	Y SIGMA (FEET)	Z SIGMA (FEET)
409	5.2580	20.4591	3.0977	.0012	.0014	.0015
410	10.2750	18.2295	3.0392	.0012	.0014	.0015
411	14.7876	14.7974	3.0359	.0013	.0014	.0015
412	18.3187	10.4411	3.0845	.0013	.0014	.0015
413	20.1798	5.3807	3.0253	.0013	.0014	.0015
414	20.2884	-5.8148	3.0889	.0013	.0014	.0015
415	18.3742	-10.9225	3.1663	.0013	.0014	.0015
417	10.6715	-18.5546	3.1789	.0012	.0014	.0014
418	5.5294	-20.5277	3.1389	.0012	.0014	.0014
420	-10.5859	-18.7555	3.2212	.0011	.0014	.0014
424	-20.8042	5.4484	3.2091	.0010	.0014	.0014
425	-18.4354	10.4515	3.1194	.0011	.0014	.0014
426	-15.2138	14.8634	3.1400	.0011	.0014	.0014
427	-10.6716	18.1959	3.0863	.0011	.0014	.0015
431	6.8863	15.5236	2.0039	.0012	.0014	.0015
432	10.8596	12.9904	1.9923	.0013	.0014	.0015
433	13.9723	9.9199	2.0388	.0013	.0014	.0015
434	16.0216	6.0870	2.0337	.0013	.0014	.0015
437	16.0390	-6.9709	2.1214	.0013	.0014	.0015
439	9.9711	-14.1349	2.0772	.0012	.0014	.0014
440	6.0300	-16.2651	2.0854	.0012	.0014	.0014
441	1.7319	-17.2901	2.0958	.0012	.0014	.0014
442	-2.9042	-17.0819	2.0799	.0012	.0014	.0014
443	-7.0145	-15.8896	2.0935	.0011	.0014	.0014
444	-10.9585	-13.3429	2.0695	.0011	.0014	.0014
445	-14.0587	-9.9984	2.0623	.0011	.0014	.0014
447	-17.2739	-1.7298	2.0900	.0011	.0014	.0014
448	-16.9820	2.6890	2.0512	.0011	.0014	.0014
449	-16.0152	6.6574	2.0918	.0011	.0014	.0014
450	-13.2842	10.8722	2.0486	.0011	.0014	.0014
451	-9.9955	13.8814	2.0295	.0011	.0014	.0015
452	-6.2729	16.0226	2.0575	.0011	.0014	.0015
453	-.2546	13.9639	1.3579	.0012	.0014	.0015
454	3.3094	13.0361	1.2565	.0012	.0014	.0015
455	6.5104	11.7154	1.2509	.0012	.0014	.0015
456	9.5064	9.5713	1.2647	.0012	.0014	.0015
460	13.2195	-3.6674	1.2999	.0013	.0014	.0015
462	9.6365	-9.7703	1.3078	.0012	.0014	.0015
463	6.8156	-11.8598	1.2996	.0012	.0014	.0014
465	-.0496	-13.7489	1.3136	.0012	.0014	.0014
466	-3.5993	-13.4150	1.3378	.0012	.0014	.0014
467	-6.8325	-12.1050	1.3415	.0011	.0014	.0014
468	-9.5172	-9.6807	1.2755	.0011	.0014	.0014
469	-11.9296	-7.0043	1.3245	.0011	.0014	.0014
470	-13.0858	-3.7787	1.2848	.0011	.0014	.0014
471	-13.7661	-.2354	1.3154	.0011	.0014	.0014
472	-13.2199	3.3477	1.2920	.0011	.0014	.0014
473	-11.8513	6.6906	1.2901	.0011	.0014	.0014
474	-9.6489	9.2539	1.2412	.0011	.0014	.0014
475	-7.1269	11.8091	1.3170	.0011	.0014	.0015
476	-3.7597	13.1599	1.3011	.0012	.0014	.0015

TABLE 1. CONT. (STATIC)

POINT NO.	X (FEET)	Y (FEET)	Z (FEET)	X SIGMA (FEET)	Y SIGMA (FEET)	Z SIGMA (FEET)
477	-.6815	9.0322	.5705	.0012	.0014	.0015
478	3.8677	7.9212	.5408	.0012	.0014	.0015
479	7.2816	4.9334	.5412	.0012	.0014	.0015
481	8.0313	-4.0393	.5621	.0012	.0014	.0015
482	4.9432	-7.5685	.5726	.0012	.0014	.0015
483	.5282	-9.0356	.5725	.0012	.0014	.0014
484	-3.9956	-8.1166	.5698	.0012	.0014	.0014
485	-7.4451	-5.2841	.5823	.0011	.0014	.0014
486	-9.1797	-.7746	.5890	.0011	.0014	.0014
488	-4.8472	7.4356	.5431	.0011	.0014	.0015
489	.7946	6.2263	.2718	.0012	.0014	.0015
490	3.6150	4.8223	.2507	.0012	.0014	.0015
492	6.2545	-.9169	.2754	.0012	.0014	.0015
493	5.1545	-4.0607	.3014	.0012	.0014	.0015
494	2.1787	-5.9156	.2768	.0012	.0014	.0014
495	-1.2311	-6.4777	.3030	.0012	.0014	.0014
496	-3.9562	-5.1681	.2922	.0012	.0014	.0014
497	-6.0114	-2.5729	.2922	.0011	.0014	.0014
498	-6.5297	.6202	.2975	.0011	.0014	.0014
499	-5.0637	3.5909	.2630	.0011	.0014	.0015
500	-2.5007	5.7919	.2708	.0012	.0014	.0015
501	-.0981	-.1040	.0078	.0012	.0014	.0015
512	-23.3651	-1.4697	9.9502	.0010	.0014	.0013
513	-20.5670	-1.4512	16.2222	.0010	.0014	.0013
514	-17.7286	-1.3648	23.1655	.0010	.0014	.0012
516	-10.0067	-1.9192	38.3130	.0010	.0014	.0011
517	-9.9050	1.7545	38.4817	.0010	.0014	.0011
518	-14.3507	.8990	30.3123	.0010	.0014	.0012
519	-17.7553	.8114	23.1272	.0010	.0014	.0012
520	-20.5438	.7765	16.2974	.0010	.0014	.0013
521	-23.4039	.7111	9.9027	.0010	.0014	.0013
550	-3.0285	3.8318	44.4468	.0010	.0014	.0011
551	-2.3643	3.7066	44.4504	.0010	.0014	.0011
552	2.3282	-3.6891	44.4329	.0011	.0014	.0011
553	3.0186	-3.8339	44.4274	.0011	.0014	.0011
602	33.0065	24.5787	11.7598	.0014	.0014	.0015
603	40.7553	-6.1077	11.7775	.0014	.0014	.0015
604	35.8143	-21.2818	12.0462	.0014	.0014	.0014
606	-6.1501	-40.9086	11.8851	.0011	.0013	.0013
607	-21.3133	-35.9239	12.1123	.0010	.0013	.0012
608	-33.1139	-24.8253	11.8984	.0010	.0013	.0012
610	-35.4765	21.1639	11.8322	.0009	.0013	.0013
611	-24.7331	33.1537	11.8855	.0010	.0013	.0014
613	23.6605	22.4815	7.3983	.0013	.0014	.0015
614	31.3095	-9.2589	7.3970	.0014	.0014	.0015
615	22.7297	-23.5534	7.4380	.0013	.0014	.0014
616	-9.3415	-31.5543	7.5201	.0011	.0013	.0013
617	-23.4829	-22.7406	7.4227	.0010	.0013	.0013
618	-31.5925	9.1005	7.4963	.0010	.0014	.0013
619	-22.9586	23.3847	7.4534	.0010	.0014	.0014
620	14.5049	23.9753	5.4499	.0013	.0014	.0015

TABLE 1. CONT. (STATIC)

POINT NO.	X (FEET)	Y (FEET)	Z (FEET)	X SIGMA (FEET)	Y SIGMA (FEET)	Z SIGMA (FEET)
621	23.9489	-14.5912	5.4583	.0013	.0014	.0015
622	-14.8807	-24.1473	5.5855	.0011	.0014	.0013
623	-24.1758	14.5916	5.5258	.0010	.0014	.0014
624	7.1106	14.8545	1.8863	.0012	.0014	.0015
626	-7.2304	-15.2454	1.9772	.0011	.0014	.0014
627	-15.4138	6.9732	1.9894	.0011	.0014	.0014
900	5.7224	40.9514	12.0339	.0012	.0013	.0015
902	32.9715	24.8915	12.0388	.0014	.0014	.0015
903	40.9326	-5.9303	12.0043	.0014	.0014	.0015
904	36.1373	-21.1593	12.3688	.0014	.0014	.0014
906	-5.9314	-41.1293	12.1696	.0011	.0013	.0013
907	-21.1823	-36.1696	12.3056	.0010	.0013	.0012
908	-33.2362	-25.1490	12.1143	.0010	.0013	.0012
909	-41.4017	5.5407	12.2404	.0009	.0014	.0012
910	-35.7277	21.0025	12.0666	.0009	.0013	.0013
911	-25.0655	33.1603	12.1757	.0010	.0013	.0014
913	23.5625	22.8220	7.5308	.0013	.0014	.0015
914	31.4774	-9.1764	7.5310	.0014	.0014	.0015
915	23.0034	-23.5690	7.6745	.0013	.0014	.0014
916	-9.1394	-31.8336	7.6415	.0011	.0013	.0013
917	-23.3988	-22.9998	7.6495	.0010	.0013	.0013
918	-31.8150	8.9421	7.6685	.0010	.0014	.0013
919	-23.3076	23.4146	7.6293	.0010	.0014	.0014
920	14.4334	24.2995	5.6595	.0013	.0014	.0015
921	24.2167	-14.4957	5.6641	.0013	.0014	.0015
922	-14.7515	-24.4359	5.7443	.0011	.0014	.0013
923	-24.4837	14.5389	5.6589	.0010	.0014	.0014
924	6.9924	15.1883	2.0076	.0012	.0014	.0015
926	-7.0972	-15.5528	2.1414	.0011	.0014	.0014
927	-15.7424	6.7663	2.1161	.0011	.0014	.0014
928	-2.6944	3.7496	44.5061	.0010	.0014	.0011
929	2.6751	-3.7444	44.4603	.0011	.0014	.0011
1003	6.0992	41.1533	12.0142	.0012	.0013	.0015
1039	-41.6133	5.8923	12.2564	.0009	.0014	.0012
1600	5.4241	40.8589	11.7930	.0012	.0013	.0015

TABLE 2. PLATE COORDINATE RESIDUALS FROM TARGET POINTS. (STATIC)

POINT NO.	CAMERA NO. 1 VX (MICRONS)	CAMERA NO. 1 VY (MICRONS)	CAMERA NO. 2 VX (MICRONS)	CAMERA NO. 2 VY (MICRONS)
1	.0	-.4	.0	1.1
2	-.2	1.0	-.0	-3.1
4	-.2	.5	-.0	-1.7
8	-.1	.4	-.1	-1.2
9	-.4	1.5	-.5	-4.1
10	-.0	.0	-.0	-.0
11	-.7	2.2	-.8	-5.7
12	.0	-.0	.0	.1
13	-.4	1.3	-.5	-3.2
14	-.5	1.8	-.6	-4.1
15	-.7	2.3	-.8	-5.2
16	-.9	2.6	-.9	-6.1
17	.1	-.5	.2	1.2
18	-.1	.4	-.1	-1.0
19	-.3	1.0	-.3	-2.1
20	-.4	1.5	-.4	-2.9
25	.0	-.5	.1	1.0
27	.1	-.7	.1	1.3
28	.3	-2.2	.1	3.9
29	1.3	-8.6	.1	14.8
30	-.1	1.2	.0	-2.0
31	-.1	1.3	.0	-2.4
32	-.0	.9	.0	-1.7
35	.0	-.9	-.1	1.7
36	.1	-2.7	-.5	5.4
37	.0	-1.7	-.3	3.5
38	.1	-2.7	-.5	5.5
39	.0	-1.7	-.3	3.6
40	.0	-1.9	-.4	4.2
41	.0	-1.3	-.2	3.1
42	.0	-1.2	-.2	2.9
43	-.0	.3	.1	-.8
44	-.0	.5	.0	-1.4
45	.0	-.6	-.0	1.6
46	.0	-.7	-.0	2.0
47	.1	-1.1	-.0	3.1
48	.0	-.7	.0	2.0
49	-.1	.3	-.0	-1.0
51	-.1	.2	-.0	-.7
53	-.1	.3	-.0	-1.0
55	-.1	.4	-.1	-1.2
57	.0	-.2	.1	.6
59	.1	-.4	.1	1.1
61	-.4	1.2	-.4	-2.9
63	-.0	.1	-.0	-.5
65	-.1	.3	-.1	-.7
73	.1	-1.0	.1	1.7
75	-.6	3.1	-.1	-3.4
77	.2	-1.6	.0	2.8

TABLE 2. CONT. (STATIC)

POINT NO.	CAMERA NO. 1 VX (MICRONS)	CAMERA NO. 1 VY (MICRONS)	CAMERA NO. 2 VX (MICRONS)	CAMERA NO. 2 VY (MICRONS)
79	-.1	1.4	.0	-2.5
81	-.0	1.0	.1	-1.9
83	-.0	-.1	-.0	.1
85	.1	-2.8	-.5	5.8
87	.0	-2.2	-.4	4.8
89	.0	-1.0	-.2	2.5
91	.1	-1.8	-.3	4.6
93	.0	-.1	-.0	.4
95	.0	-.1	-.0	.5
97	.2	-1.6	.0	4.6
99	-.3	1.3	-.1	-3.6
103	-.0	.2	-.0	-.8
105	.4	-1.4	.4	3.7
107	-.1	.4	-.1	-1.0
109	-.3	.9	-.3	-2.3
111	-.3	1.0	-.3	-2.4
113	-.0	.1	-.0	-.3
119	-.1	.5	-.1	-1.1
123	.1	-.6	.0	1.1
125	-.5	3.2	-.0	-5.8
127	-.0	.7	.0	-1.3
129	.0	-.4	-.0	.9
131	.0	-.4	-.0	.9
133	.1	-2.8	-.5	5.8
135	.0	-.8	-.1	1.7
137	.0	-.5	-.1	1.2
139	-.0	.3	.0	-.9
141	-.1	1.1	.1	-2.8
143	-.2	1.9	.1	-5.1
145	.0	-.1	.0	.3
146	-.0	.3	.0	-.8
147	-.1	.6	-.0	-1.8
148	-.4	1.7	-.3	-4.9
149	.1	-.8	.1	2.3
150	-.1	.5	-.1	-1.4
151	.1	-.6	.1	1.7
152	.1	-.4	.1	1.1
155	.1	-.3	.1	.9
156	-.0	.0	.0	.0
157	.1	-.4	.1	1.1
158	-1.3	4.2	-1.3	-9.6
159	.9	-3.0	.9	6.8
160	.4	-1.3	.3	2.9
161	.2	-.7	.2	1.6
163	.5	-1.7	.4	3.4
164	.1	-.5	.1	1.1
165	.5	-2.0	.4	3.8
166	-.1	.5	-.1	-1.0
167	-.4	1.7	-.2	-3.1
169	-.0	.2	.0	-.4

TABLE 2. CONT. (STATIC)

POINT NO.	CAMERA NO. 1 VX (MICRONS)	CAMERA NO. 1 VY (MICRONS)	CAMERA NO. 2 VX (MICRONS)	CAMERA NO. 2 VY (MICRONS)
170	.2	-1.3	.1	2.4
171	-.3	2.0	-.0	-3.6
172	.2	-1.0	.0	1.9
173	-.3	2.3	.0	-4.1
174	-.1	.5	.0	-1.0
175	-.2	2.1	.1	-3.9
176	-.0	.2	.0	-.4
177	.0	-.9	-.0	1.7
178	.0	-.3	-.0	.6
179	-.0	.2	.0	-.4
180	.0	-.5	-.1	1.1
181	.1	-1.7	-.3	3.6
182	-.0	.1	.0	-.3
183	-.0	.7	.1	-1.7
184	-.1	2.4	.5	-5.5
185	-.0	.5	.1	-1.4
186	-.1	1.8	.3	-4.4
187	-.1	1.7	.2	-4.3
188	-.1	1.5	.2	-3.8
189	-.1	1.2	.1	-3.3
190	-.1	.7	.0	-2.0
191	-.0	.2	.0	-.6
192	.6	-3.9	.0	10.6
193	-.0	.3	.0	-.9
194	.3	-1.9	.1	5.3
195	-.0	-.0	.0	.1
198	.2	-1.0	.2	2.8
199	.2	-.8	.1	2.2
200	.0	.0	.0	-.0
201	.5	-1.9	.5	4.9
202	.5	-1.8	.5	4.6
204	.6	-2.0	.6	5.0
205	.5	-1.9	.6	4.6
207	.6	-1.9	.5	4.3
208	-.0	.1	-.0	-.4
209	-.0	.3	-.0	-.7
210	-.4	1.4	-.3	-3.0
212	-.0	.0	-.0	-.1
213	.0	-.3	.0	.7
214	.3	-1.1	.2	2.2
215	-.1	.5	-.0	-1.0
216	-.4	1.8	-.2	-3.4
217	.5	-2.2	.2	4.1
218	.5	-2.5	.2	4.6
219	.1	-.9	.0	1.6
220	.1	-.6	.0	1.1
221	-.2	1.6	.0	-2.9
222	-.0	.3	.0	-.5
223	-.0	.5	.0	-1.0
224	.1	-.8	-.0	1.5

TABLE 2. CONT. (STATIC)

POINT NO.	CAMERA NO. 1 VX (MICRONS)	CAMERA NO. 1 VY (MICRONS)	CAMERA NO. 2 VX (MICRONS)	CAMERA NO. 2 VY (MICRONS)
225	.0	-.7	-.0	1.4
226	-.0	.7	.0	-1.4
227	-.1	2.0	.2	-4.0
228	-.0	.7	.1	-1.6
229	-.0	1.4	.2	-2.9
230	-.1	1.5	.2	-3.2
231	-.0	1.0	.2	-2.3
232	.0	-.5	-.1	1.3
233	-.1	1.2	.2	-2.8
234	-.1	2.3	.4	-5.5
235	-.1	1.8	.2	-4.5
236	-.0	.2	.0	-.6
237	-.1	1.2	.1	-3.2
238	.0	-.6	-.0	1.5
239	-.3	2.2	.0	-5.9
240	-.2	1.6	.0	-4.2
290	-.0	.0	.0	-.1
294	-.0	.1	-.0	-.3
296	-.0	.2	-.0	-.5
298	.5	-1.9	.4	4.7
306	-.0	.1	-.0	-.3
308	.4	-1.6	.3	3.4
310	.4	-1.9	.3	3.8
312	-.2	1.1	-.1	-2.1
318	-.3	2.1	.0	-4.1
320	-.2	1.7	.0	-3.2
322	-.0	.5	.0	-1.1
324	.0	.0	-.0	-.0
326	-.0	1.1	.2	-2.5
328	-.3	3.3	.4	-7.4
330	-.0	.8	.1	-1.8
332	-.1	1.7	.1	-4.4
334	-.1	.8	.0	-2.2
336	-.0	.5	.0	-1.3
388	.3	-1.5	.2	3.9
389	.4	-1.7	.3	4.3
390	.6	-2.2	.4	5.4
391	.1	-.4	.0	1.1
392	.2	-.7	.1	1.6
393	.2	-1.0	.2	2.2
394	.4	-1.7	.3	3.6
395	.6	-2.8	.4	5.8
396	.1	-.9	.1	1.7
397	.1	-.6	.0	1.3
398	.4	-2.2	.1	4.2
400	.0	-.5	-.0	1.0
401	-.3	2.4	.1	-4.8
402	-.0	.5	.0	-1.1
403	-.2	2.2	.2	-4.7
404	-.0	.6	.0	-1.3

TABLE 2. CONT. (STATIC)

POINT NO.	CAMERA NO. 1 VX (MICRONS)	CAMERA NO. 1 VY (MICRONS)	CAMERA NO. 2 VX (MICRONS)	CAMERA NO. 2 VY (MICRONS)
405	-.1	1.6	.2	-3.8
406	-.0	.6	.0	-1.4
407	-.1	1.1	.0	-2.6
408	-.1	.8	.0	-2.1
409	-.0	.3	-.0	-.9
410	-.0	.3	-.0	-.9
411	-.0	.1	-.0	-.3
412	.2	-1.2	.2	3.0
413	.2	-1.0	.2	2.4
414	.4	-1.6	.3	3.7
415	.2	-1.3	.2	2.7
417	.5	-2.3	.3	4.7
418	.2	-1.4	.1	2.9
420	-.3	1.9	.0	-3.8
424	-.2	2.0	.1	-4.5
425	-.0	.4	.0	-.9
426	-.1	.9	.0	-2.3
427	-.2	1.7	.0	-4.1
431	.0	-.0	-.0	.1
432	.0	-.3	.0	.7
433	.1	-.6	.0	1.4
434	.0	-.0	.0	.0
437	.7	-3.2	.5	7.1
439	.4	-1.7	.2	3.6
440	.1	-.6	.0	1.3
441	-.0	.2	-.0	-.4
442	-.0	.3	-.0	-.5
443	.1	-.7	.0	1.5
444	.1	-.9	-.0	1.9
445	-.3	2.5	.1	-5.2
447	-.2	1.8	.1	-3.9
448	-.3	2.9	.2	-6.4
449	-.1	1.5	.1	-3.4
450	-.1	1.2	.1	-2.8
451	-.0	.5	.0	-1.3
452	-.3	2.5	.0	-6.0
453	.1	-.6	.0	1.6
454	.3	-1.6	.0	3.8
455	.0	-.4	.0	1.0
456	.2	-1.1	.1	2.6
460	.0	-.0	.0	.2
462	.3	-1.6	.1	3.4
463	.5	-2.5	.2	5.2
465	-.0	-.0	-.0	.0
466	.1	-.4	.0	.9
467	-.0	.2	.0	-.4
468	-.1	.9	.0	-1.9
469	-.1	.9	.0	-1.9
470	-.3	2.9	.0	-6.2
471	-.2	1.8	.0	-4.0

TABLE 2. CONT. (STATIC)

POINT NO.	CAMERA NO. 1 VX (MICRONS)	CAMERA NO. 1 VY (MICRONS)	CAMERA NO. 2 VX (MICRONS)	CAMERA NO. 2 VY (MICRONS)
472	-.3	2.3	.0	-5.2
473	-.1	.9	.0	-2.0
474	-.3	2.5	.0	-5.8
475	-.2	1.3	.0	-3.1
476	-.3	2.1	-.0	-5.2
477	-.0	.0	-.0	-.2
478	.0	-.3	.0	.8
479	.0	-.2	.0	.5
481	.0	-.4	.0	.9
482	.0	-.0	.0	.1
483	.1	-.4	.0	1.0
484	-.1	.8	-.0	-1.7
485	-.0	.2	.0	-.5
486	-.1	1.2	.0	-2.6
488	-.1	.6	-.0	-1.4
489	-.1	.6	-.0	-1.5
490	.3	-1.7	.1	3.9
492	.2	-1.0	.0	2.3
493	.1	-.8	.0	1.8
494	-.1	.7	-.0	-1.5
495	-.0	.1	-.0	-.2
496	-.0	.4	.0	-.9
497	-.1	.8	-.0	-1.7
498	-.1	.7	.0	-1.5
499	.1	-1.0	.0	2.2
500	-.1	.8	-.0	-1.9
501	-.1	.6	-.0	-1.3
512	-.2	2.2	.1	-4.7
513	-.2	1.7	.0	-3.8
514	-.2	1.5	-.0	-3.4
516	-1.5	2.0	-1.1	-3.2
517	-1.7	2.5	-1.1	-4.7
518	-.6	3.1	-.2	-6.9
519	-.4	2.4	-.0	-5.4
520	.2	-1.2	-.0	2.6
521	-.0	.0	.0	-.2
550	-1.6	4.1	-.5	-8.0
551	-1.8	5.7	-.8	-9.4
552	-2.4	6.7	-1.5	-10.6
553	-2.9	7.2	-1.1	-13.9
602	.3	-1.0	.3	2.8
603	-.0	.3	-.1	-.8
604	.1	-.3	.1	.7
606	-.0	.2	.0	-.5
607	-.6	4.2	.1	-7.3
608	-.1	1.0	.1	-1.9
610	-.2	3.5	.8	-8.5
611	-.1	1.8	.2	-4.9
613	.0	-.3	.0	.7
614	.9	-3.0	.8	6.7

TABLE 2. CONT. (STATIC)

POINT NO.	CAMERA NO. 1 VX (MICRONS)	CAMERA NO. 1 VY (MICRONS)	CAMERA NO. 2 VX (MICRONS)	CAMERA NO. 2 VY (MICRONS)
615	.0	-.0	.0	.1
616	.2	-1.7	.0	3.2
617	.1	-1.2	-.0	2.3
618	-.1	2.4	.4	-5.6
619	-.2	2.3	.2	-5.8
620	-.0	.4	-.0	-1.1
621	-.1	.4	-.0	-.9
622	-.0	.5	.0	-1.1
623	-.2	2.2	.2	-5.4
624	.4	-2.1	.2	5.2
626	.0	-.6	.0	1.2
627	-.2	1.7	.1	-4.0
900	.1	-.8	.2	2.4
902	-.0	.3	-.0	-.7
903	.0	-.0	-.0	.1
904	-.8	2.7	-.8	-5.6
906	-.5	2.2	-.0	-3.9
907	-.1	1.1	.0	-2.0
908	-.0	.8	.0	-1.5
909	-.0	-.5	-.0	1.0
910	-.0	.9	.2	-2.3
911	-.2	2.2	.3	-6.0
913	.5	-2.1	.5	5.5
914	.4	-1.7	.4	3.6
915	.0	-.1	.0	.3
916	.2	-1.3	.0	2.4
917	.0	.0	.0	-.1
918	-.0	.9	.1	-2.2
919	-.4	3.7	.4	-9.3
920	-.0	.3	-.0	-1.0
921	.3	-1.2	.2	2.5
922	-.5	3.5	.0	-6.7
923	-.2	2.6	.3	-6.1
924	.2	-1.5	.1	3.8
926	-.1	1.2	-.0	-2.4
927	-.3	2.8	.1	-6.4
928	-2.9	5.9	-1.8	-9.9
929	-1.0	4.7	-.2	-8.3
1003	-.2	.6	-.0	-2.0
1039	.0	-2.4	-.5	5.2
1600	-.2	.7	-.0	-2.3

TABLE 3. X,Y,Z, COMPONENT DEPARTURES AND PERPENDICULAR DEPARTURE OF TARGET POINTS FROM BEST-FITTING PARABOLOID OF REVOLUTION. (STATIC)

POINT NO.	DX (FEET)	DY (FEET)	DZ (FEET)	D (FEET)
1	.0004	-.0034	.0060	.0070
2	0.0000	-.0013	.0023	.0027
4	-.0009	-.0033	.0059	.0068
8	-.0052	-.0051	.0126	.0146
9	-.0026	-.0020	.0057	.0066
10	-.0004	-.0002	.0008	.0009
11	.0013	.0005	-.0025	-.0029
12	-.0001	0.0000	.0002	.0002
13	.0011	.0001	-.0019	-.0023
14	-.0014	0.0000	.0025	.0029
15	.0041	-.0005	-.0072	-.0083
16	-.0037	.0010	.0066	.0076
17	-.0033	.0014	.0062	.0072
18	-.0017	.0010	.0035	.0041
19	.0026	-.0020	-.0057	-.0067
20	-.0012	.0012	.0031	.0036
25	-.0001	.0016	.0028	.0032
27	.0006	.0045	.0078	.0090
28	.0013	.0048	.0085	.0098
29	-.0004	-.0011	-.0020	-.0024
30	.0004	.0008	.0015	.0018
31	-.0012	-.0016	-.0035	-.0041
32	.0011	.0011	.0028	.0032
35	.0034	.0014	.0064	.0074
36	.0009	.0002	.0017	.0020
37	.0048	.0006	.0084	.0098
38	-.0043	0.0000	-.0074	-.0086
39	-.0019	.0002	-.0033	-.0038
40	.0030	-.0008	.0055	.0064
41	.0053	-.0022	.0099	.0115
42	-.0035	.0020	-.0070	-.0081
43	-.0053	.0041	-.0116	-.0134
44	-.0004	.0004	-.0010	-.0011
45	.0043	-.0057	.0124	.0143
46	.0014	-.0024	.0049	.0057
47	.0004	-.0011	.0022	.0025
48	.0011	-.0043	.0078	.0090
49	.0001	-.0019	.0035	.0040
51	0.0000	0.0000	.0001	.0001
53	-.0014	-.0029	.0058	.0066
55	-.0044	-.0051	.0121	.0139
57	-.0005	-.0003	.0011	.0013
59	.0024	.0008	-.0046	-.0052
61	0.0000	0.0000	.0001	.0002
63	.0010	-.0001	-.0018	-.0021
65	0.0000	0.0000	.0001	.0001
73	0.0000	-.0003	-.0006	-.0007
75	.0005	.0030	.0055	.0063
77	-.0003	-.0006	-.0012	-.0014

TABLE 3. CONT. (STATIC)

POINT NO.	DX (FEET)	DY (FEET)	DZ (FEET)	D (FEET)
79	-.0005	-.0005	-.0013	-.0015
81	.0025	.0017	.0054	.0062
83	.0005	.0002	.0011	.0012
85	-.0007	0.0000	-.0013	-.0015
87	-.0008	.0001	-.0014	-.0016
89	-.0001	0.0000	-.0002	-.0003
91	-.0030	.0025	-.0071	-.0081
93	.0016	-.0024	.0052	.0059
95	0.0000	-.0001	.0002	.0003
97	.0003	-.0026	.0050	.0057
99	0.0000	.0005	-.0010	-.0012
103	-.0023	-.0030	.0073	.0082
105	-.0014	-.0011	.0035	.0040
107	-.0026	-.0010	.0054	.0061
109	-.0005	0.0000	.0010	.0012
111	.0040	-.0005	-.0077	-.0087
113	.0006	-.0002	-.0014	-.0016
119	-.0008	.0021	.0044	.0050
123	.0002	.0019	.0038	.0042
125	0.0000	0.0000	0.0000	0.0000
127	-.0005	-.0007	-.0017	-.0020
129	.0028	.0021	.0068	.0076
131	.0029	.0011	.0059	.0067
133	-.0006	0.0000	-.0012	-.0013
135	0.0000	0.0000	-.0001	-.0001
137	-.0002	0.0000	-.0004	-.0005
139	-.0030	.0023	-.0073	-.0082
141	.0015	-.0020	.0048	.0054
143	.0004	-.0011	.0023	.0026
145	0.0000	-.0005	.0010	.0011
146	0.0000	0.0000	0.0000	0.0000
147	.0002	.0013	-.0026	-.0029
148	-.0007	-.0021	.0044	.0050
149	-.0005	-.0011	.0024	.0027
150	-.0015	-.0024	.0058	.0064
151	-.0009	-.0011	.0030	.0034
152	-.0013	-.0012	.0037	.0041
155	.0032	.0011	-.0068	-.0076
156	.0025	.0005	-.0051	-.0057
157	.0013	0.0000	-.0026	-.0029
158	.0019	-.0001	-.0038	-.0043
159	.0012	-.0002	-.0025	-.0028
160	-.0003	.0001	.0007	.0008
161	.0012	-.0005	-.0027	-.0030
163	.0009	-.0008	-.0025	-.0028
164	.0005	-.0006	-.0017	-.0019
165	0.0000	0.0000	.0002	.0002
166	.0002	-.0004	-.0009	-.0011
167	-.0002	.0006	.0014	.0016
169	0.0000	-.0006	-.0012	-.0014
170	0.0000	-.0004	-.0008	-.0009

TABLE 3. CONT. (STATIC)

POINT NO.	DX (FEET)	DY (FEET)	DZ (FEET)	D (FEET)
171	0.0000	.0004	.0008	.0009
172	-.0002	-.0007	-.0016	-.0018
173	-.0007	-.0015	-.0034	-.0038
174	-.0005	-.0008	-.0020	-.0022
175	-.0011	-.0012	-.0033	-.0037
176	.0009	.0008	.0025	.0028
177	.0006	.0004	.0015	.0017
178	.0001	0.0000	.0002	.0002
179	0.0000	0.0000	0.0000	.0001
180	-.0010	-.0002	-.0021	-.0024
181	-.0033	-.0002	-.0067	-.0075
182	-.0036	.0002	-.0073	-.0082
183	-.0008	.0001	-.0018	-.0020
184	-.0018	.0005	-.0037	-.0042
185	-.0022	.0011	-.0051	-.0057
186	-.0039	.0026	-.0095	-.0106
187	-.0014	.0012	-.0037	-.0042
188	-.0002	.0002	-.0006	-.0007
189	.0003	-.0005	.0013	.0014
190	.0006	-.0012	.0027	.0030
191	-.0003	.0010	-.0021	-.0024
192	.0004	-.0019	.0039	.0044
193	.0005	-.0041	.0092	.0101
194	0.0000	-.0009	.0019	.0021
195	-.0002	-.0019	.0043	.0048
198	-.0003	-.0006	.0015	.0016
199	-.0020	-.0025	.0071	.0078
200	-.0008	-.0008	.0027	.0029
201	-.0007	-.0005	.0019	.0021
202	-.0017	-.0009	.0043	.0047
204	.0041	.0010	-.0093	-.0102
205	.0019	.0002	-.0042	-.0046
207	-.0006	0.0000	.0015	.0016
208	-.0001	0.0000	.0003	.0003
209	.0006	-.0002	-.0015	-.0016
210	-.0016	.0010	.0042	.0047
212	.0001	-.0001	-.0003	-.0003
213	-.0018	.0025	.0068	.0075
214	-.0011	.0020	.0049	.0055
215	0.0000	0.0000	-.0001	-.0002
216	-.0007	.0029	.0065	.0072
217	-.0001	.0013	.0028	.0031
218	0.0000	.0012	.0026	.0029
219	-.0001	-.0012	-.0028	-.0031
220	.0003	.0011	.0025	.0028
221	-.0004	-.0010	-.0023	-.0025
222	-.0003	-.0005	-.0012	-.0014
223	-.0015	-.0020	-.0055	-.0061
224	.0015	.0015	.0047	.0051
225	-.0004	-.0003	-.0012	-.0014
226	.0003	.0001	.0008	.0009

TABLE 3. CONT. (STATIC)

POINT NO.	DX (FEET)	DY (FEET)	DZ (FEET)	D (FEET)
227	-.0004	-.0001	-.0009	-.0010
228	.0005	.0001	.0011	.0013
229	-.0022	-.0002	-.0048	-.0053
230	-.0042	0.0000	-.0091	-.0100
231	.0002	0.0000	.0005	.0006
232	-.0034	.0009	-.0078	-.0085
233	.0005	-.0002	.0014	.0015
234	-.0014	.0008	-.0035	-.0038
235	-.0012	.0009	-.0035	-.0038
236	.0011	-.0011	.0036	.0040
237	.0003	-.0005	.0014	.0015
238	.0005	-.0009	.0024	.0026
239	.0004	-.0011	.0026	.0028
240	.0002	-.0010	.0023	.0025
290	0.0000	.0006	-.0016	-.0018
294	-.0001	-.0002	.0008	.0009
296	.0007	.0006	-.0025	-.0026
298	.0001	.0001	-.0005	-.0006
306	-.0001	0.0000	.0003	.0003
308	-.0004	.0004	.0015	.0016
310	-.0003	.0007	.0020	.0022
312	-.0002	.0009	.0024	.0026
318	.0002	.0003	.0010	.0011
320	-.0003	-.0003	-.0013	-.0014
322	-.0003	-.0001	-.0009	-.0010
324	.0001	0.0000	.0004	.0005
326	-.0038	0.0000	-.0096	-.0103
328	-.0016	.0004	-.0044	-.0047
330	-.0034	.0020	-.0100	-.0108
332	.0002	-.0002	.0009	.0009
334	.0002	-.0003	.0010	.0011
336	.0001	-.0005	.0013	.0014
388	-.0002	-.0002	.0010	.0011
389	0.0000	0.0000	.0003	.0003
390	.0008	.0003	-.0029	-.0030
391	.0013	.0001	-.0042	-.0044
392	0.0000	0.0000	.0002	.0003
393	-.0017	.0007	.0056	.0059
394	-.0001	.0001	.0005	.0005
395	-.0001	.0002	.0009	.0009
396	-.0001	.0003	.0010	.0010
397	-.0001	.0012	.0036	.0038
398	.0002	.0016	.0049	.0052
400	-.0002	-.0003	-.0013	-.0014
401	.0002	.0001	.0008	.0009
402	.0005	.0002	.0017	.0018
403	.0016	.0001	.0048	.0051
404	.0015	-.0002	.0047	.0049
405	.0013	-.0005	.0043	.0045
406	.0008	-.0006	.0033	.0035
407	.0008	-.0011	.0041	.0043

TABLE 3. CONT. (STATIC)

POINT NO.	DX (FEET)	DY (FEET)	DZ (FEET)	D (FEET)
408	.0005	-.0012	.0041	.0043
409	0.0000	-.0001	.0004	.0004
410	0.0000	0.0000	0.0000	0.0000
411	.0002	.0002	-.0012	-.0013
412	.0002	.0001	-.0007	-.0008
413	.0004	.0001	-.0014	-.0015
414	.0006	-.0001	-.0021	-.0022
415	.0011	-.0006	-.0043	-.0045
417	.0001	-.0002	-.0010	-.0011
418	-.0001	.0004	.0014	.0014
420	0.0000	.0001	.0006	.0006
424	-.0006	.0001	-.0022	-.0023
425	.0002	-.0001	.0009	.0009
426	-.0001	.0001	-.0009	-.0009
427	-.0004	.0007	-.0028	-.0030
431	-.0001	-.0003	.0018	.0018
432	-.0003	-.0004	.0022	.0023
433	-.0001	-.0001	.0008	.0008
434	.0010	.0003	-.0046	-.0047
437	.0002	-.0001	-.0011	-.0011
439	0.0000	0.0000	.0001	.0001
440	.0002	-.0007	-.0034	-.0035
441	0.0000	-.0001	-.0005	-.0005
442	-.0001	-.0010	-.0045	-.0047
443	-.0001	-.0003	-.0014	-.0014
444	-.0001	-.0001	-.0009	-.0009
445	-.0008	-.0006	-.0045	-.0046
447	-.0007	0.0000	-.0032	-.0033
448	-.0004	0.0000	-.0020	-.0021
449	.0005	-.0002	.0023	.0023
450	.0003	-.0002	.0018	.0019
451	-.0003	.0004	-.0023	-.0024
452	.0001	-.0003	.0015	.0015
453	0.0000	-.0006	.0031	.0032
454	0.0000	0.0000	.0003	.0003
455	-.0003	-.0005	.0035	.0035
456	-.0001	-.0001	.0013	.0013
460	.0011	-.0003	-.0062	-.0063
462	0.0000	0.0000	.0004	.0004
463	0.0000	0.0000	.0004	.0004
465	0.0000	.0001	.0006	.0006
466	-.0001	-.0003	-.0021	-.0021
467	0.0000	-.0001	-.0007	-.0007
468	-.0006	-.0006	-.0048	-.0048
469	-.0008	-.0004	-.0051	-.0052
470	-.0007	-.0002	-.0041	-.0042
471	-.0003	0.0000	-.0017	-.0018
472	0.0000	0.0000	-.0003	-.0003
473	.0004	-.0002	.0030	.0030
474	0.0000	0.0000	-.0006	-.0006
475	-.0004	.0007	-.0044	-.0045

TABLE 3. CONT. (STATIC)

POINT NO.	DX (FEET)	DY (FEET)	DZ (FEET)	D (FEET)
476	0.0000	0.0000	0.0000	0.0000
477	0.0000	0.0000	.0001	.0001
478	0.0000	0.0000	.0008	.0008
479	-.0003	-.0002	.0037	.0037
481	0.0000	0.0000	.0006	.0006
482	-.0003	.0004	.0047	.0047
483	0.0000	.0003	.0029	.0029
484	0.0000	0.0000	.0005	.0005
485	.0002	.0001	.0023	.0023
486	-.0001	0.0000	-.0014	-.0014
488	-.0003	.0004	-.0048	-.0048
489	0.0000	.0002	-.0024	-.0025
490	.0001	.0001	-.0021	-.0021
492	.0002	0.0000	-.0025	-.0025
493	-.0001	.0001	.0019	.0019
494	0.0000	0.0000	.0001	.0001
495	0.0000	0.0000	.0001	.0001
496	-.0001	-.0002	-.0030	-.0030
497	-.0004	-.0002	-.0058	-.0058
498	-.0002	0.0000	-.0023	-.0023
499	-.0004	.0002	-.0057	-.0057
500	-.0002	.0005	-.0064	-.0064
501	0.0000	0.0000	.0066	.0066
512	1.8035	.1053	5.5586	5.8448
513	3.5034	.2314	12.2665	12.7590
514	4.8664	.3527	19.7665	20.3598
516	5.1241	.9590	36.8550	37.2218
517	5.0914	-.9253	37.0567	37.4162
518	5.5309	-.3713	27.7706	28.3185
519	4.8628	-.2440	19.7330	20.3248
520	3.5236	-.1489	12.3571	12.8505
521	1.7914	-.0624	5.5145	5.7985
550	1.8427	-2.3530	44.0786	44.1798
551	1.4389	-2.2783	44.1518	44.2339
552	-1.4165	2.2668	44.1389	44.2198
553	-1.8358	2.3532	44.0599	44.1609
602	-.0024	-.0017	.0052	.0060
603	.0037	-.0005	-.0067	-.0077
604	-.0002	.0001	.0005	.0006
606	.0004	.0029	.0052	.0060
607	.0004	.0007	.0015	.0018
608	.0034	.0025	.0075	.0087
610	-.0041	.0025	-.0085	-.0098
611	.0030	-.0040	.0088	.0101
613	-.0015	-.0015	.0048	.0053
614	.0003	-.0001	-.0008	-.0009
615	-.0005	.0005	.0017	.0019
616	.0003	.0011	.0026	.0028
617	.0013	.0013	.0042	.0046
618	-.0024	.0007	-.0055	-.0060
619	-.0002	.0002	-.0007	-.0007

TABLE 3. CONT. (STATIC)

POINT NO.	DX (FEET)	DY (FEET)	DZ (FEET)	D (FEET)
620	-.0001	-.0001	.0005	.0005
621	0.0000	0.0000	.0002	.0002
622	0.0000	.0001	.0004	.0004
623	-.0027	.0017	-.0083	-.0089
624	-.0003	-.0006	.0033	.0034
626	0.0000	0.0000	0.0000	0.0000
627	.0002	-.0001	.0013	.0013
900	-.0102	-.0709	.1249	.1440
902	-.0664	-.0496	.1446	.1666
903	-.0556	.0083	.0980	.1130
904	-.0735	.0434	.1469	.1699
906	.0116	.0785	.1377	.1589
907	.0244	.0412	.0824	.0954
908	.0196	.0147	.0424	.0490
909	.0556	-.0076	.0968	.1119
910	.0537	-.0319	.1086	.1253
911	.0472	-.0631	.1366	.1577
913	-.0168	-.0161	.0512	.0562
914	-.0249	.0073	.0571	.0628
915	-.0383	.0395	.1204	.1324
916	.0029	.0100	.0228	.0251
917	.0479	.0466	.1468	.1613
918	.0319	-.0091	.0724	.0797
919	.0141	-.0143	.0438	.0482
920	-.0201	-.0335	.0996	.1070
921	-.0392	.0237	.1169	.1256
922	.0158	.0260	.0770	.0828
923	.0090	-.0054	.0266	.0286
924	-.0062	-.0133	.0636	.0653
926	.0106	.0229	.1067	.1097
927	.0161	-.0070	.0739	.0760
928	1.6421	-2.3069	44.1766	44.2673
929	-1.6287	2.3014	44.1332	44.2231
1003	-.0001	-.0012	.0022	.0025
1039	-.0013	.0001	-.0022	-.0026
1600	-.0001	-.0013	.0024	.0028

SECTION VIII.

TABULATED RESULTS OF DYNAMIC 1 DEGREE/ SECOND^2 CALIBRATION

TABLE 1. COORDINATES AND STANDARD DEVIATIONS OF TRIANGULATED TARGET POINTS. (1 DEGREE)

POINT NO.	X (FEET)	Y (FEET)	Z (FEET)	X SIGMA (FEET)	Y SIGMA (FEET)	Z SIGMA (FEET)
1	-5.5164	41.3996	12.1181	.0015	.0017	.0018
2	0.0000	41.8111	12.1375	.0015	.0017	.0018
3	5.4739	41.2995	12.0498	.0016	.0017	.0018
4	10.8650	40.1994	12.0397	.0016	.0017	.0018
8	29.4223	29.3345	11.9972	.0018	.0018	.0019
9	33.0427	25.2910	12.0204	.0018	.0018	.0019
10	36.2744	20.8128	12.1383	.0019	.0018	.0019
11	38.6049	15.9566	12.1060	.0019	.0018	.0019
12	40.1109	10.4136	11.9176	.0019	.0018	.0019
13	41.1683	5.0207	11.9340	.0019	.0018	.0019
14	41.5154	-.3475	11.9637	.0019	.0018	.0019
15	41.2070	-5.7008	12.0016	.0020	.0018	.0019
16	40.2749	-11.1734	12.1306	.0020	.0018	.0019
17	38.8907	-16.0064	12.2821	.0020	.0018	.0019
18	36.4912	-21.0351	12.3201	.0019	.0018	.0019
19	33.2890	-25.6256	12.2435	.0019	.0017	.0019
20	29.4657	-29.7573	12.1751	.0019	.0017	.0019
25	4.8391	-41.6555	12.2118	.0017	.0017	.0018
26	-.4448	-42.0152	12.2582	.0017	.0016	.0018
27	-5.7702	-41.4081	12.1411	.0016	.0016	.0018
28	-11.0341	-40.4931	12.2338	.0016	.0016	.0018
29	-16.3431	-38.4750	12.1275	.0015	.0016	.0018
30	-21.0977	-36.4419	12.3101	.0015	.0017	.0017
31	-25.8286	-32.9642	12.1688	.0014	.0017	.0017
32	-29.8290	-29.5252	12.2278	.0014	.0017	.0017
33	-33.3119	-25.4332	12.1981	.0014	.0017	.0017
34	-36.4181	-21.1477	12.3196	.0013	.0017	.0016
35	-38.9429	-16.2486	12.3637	.0013	.0017	.0016
36	-40.7245	-11.0100	12.3525	.0013	.0017	.0016
37	-41.5386	-5.3726	12.1875	.0013	.0017	.0016
38	-42.1495	-.1260	12.3212	.0013	.0017	.0016
39	-41.6796	5.4450	12.2580	.0013	.0017	.0016
40	-40.3099	10.9767	12.1227	.0013	.0017	.0016
42	-36.0953	20.9787	12.0879	.0013	.0017	.0016
43	-33.2364	25.4105	12.1355	.0013	.0017	.0016
44	-29.6940	29.7441	12.2618	.0013	.0017	.0017
46	-20.9484	36.2367	12.1683	.0014	.0017	.0017
47	-16.1438	38.6692	12.1939	.0014	.0017	.0017
48	-10.9574	40.3449	12.1427	.0014	.0017	.0018
49	-3.3929	40.1778	11.2844	.0015	.0017	.0018
51	7.1143	39.4406	11.1475	.0016	.0017	.0018
53	17.1866	36.0834	11.0944	.0017	.0017	.0019
55	25.9498	30.3842	11.0963	.0018	.0018	.0019
57	33.2214	22.6068	11.2063	.0018	.0018	.0019
59	37.7835	13.2858	11.1257	.0019	.0018	.0019
61	40.0655	3.0783	11.2052	.0019	.0018	.0019
63	39.3934	-7.3929	11.1464	.0019	.0018	.0019
65	36.3278	-17.4885	11.2820	.0019	.0018	.0019
73	2.8801	-40.1824	11.2652	.0017	.0017	.0018
75	-7.2930	-39.9007	11.4260	.0016	.0017	.0018

TABLE 1. CONT. ( ) DEGREE)

POINT NO.	X (FEET)	Y (FEET)	Z (FEET)	X SIGMA (FEET)	Y SIGMA (FEET)	Z SIGMA (FEET)
77	-17.2591	-36.4060	11.2664	.0015	.0017	.0018
79	-26.5520	-30.7952	11.4728	.0014	.0017	.0017
81	-33.5684	-22.8322	11.4450	.0013	.0017	.0017
83	-38.2874	-13.4492	11.4301	.0013	.0017	.0016
85	-40.0304	-3.4411	11.2000	.0013	.0017	.0016
87	-39.8768	7.6410	11.4378	.0013	.0017	.0016
89	-36.4638	17.1358	11.2674	.0013	.0017	.0016
91	-30.7918	25.8580	11.2139	.0013	.0017	.0017
93	-22.9192	33.1739	11.2951	.0014	.0017	.0017
95	-13.6553	37.8303	11.2319	.0014	.0017	.0018
97	-4.9074	37.2214	9.7904	.0015	.0017	.0018
99	4.9130	37.1463	9.7437	.0016	.0017	.0018
103	22.7494	29.7606	9.7445	.0018	.0018	.0019
105	29.7908	22.7103	9.7399	.0018	.0018	.0019
107	34.8165	14.3196	9.8394	.0019	.0018	.0019
109	37.2373	4.6681	9.7708	.0019	.0018	.0019
113	34.5577	-14.5294	9.7558	.0019	.0018	.0019
119	14.2328	-34.7653	9.7995	.0018	.0017	.0019
123	-5.2941	-37.2012	9.8054	.0016	.0017	.0018
125	-14.6680	-34.5734	9.7906	.0015	.0017	.0018
127	-23.0304	-29.6973	9.8014	.0014	.0017	.0017
129	-29.9803	-22.7977	9.8521	.0014	.0017	.0017
131	-34.8682	-14.2216	9.8483	.0013	.0017	.0017
133	-37.3559	-4.8885	9.8502	.0013	.0017	.0016
135	-37.3286	5.1281	9.6524	.0013	.0017	.0016
137	-34.7772	14.4136	9.8370	.0013	.0017	.0017
139	-29.8885	22.8473	9.8139	.0013	.0017	.0017
141	-22.9608	29.7782	9.8224	.0014	.0017	.0017
143	-14.4450	34.6826	9.7980	.0014	.0017	.0018
145	-2.8939	35.9240	9.0172	.0015	.0017	.0018
146	1.6942	36.1149	9.0707	.0016	.0017	.0018
147	6.5001	35.6627	9.1172	.0016	.0017	.0018
148	11.3486	34.3936	9.1092	.0017	.0017	.0019
149	15.5660	32.5676	9.0439	.0017	.0018	.0019
150	19.5767	30.2189	9.0058	.0017	.0018	.0019
151	23.1236	27.1475	8.8268	.0018	.0018	.0019
155	34.0696	11.8717	9.0219	.0019	.0018	.0019
156	35.2892	7.4203	9.0169	.0019	.0018	.0019
157	35.8289	2.5576	8.9520	.0019	.0018	.0019
158	35.9953	-2.0880	9.0242	.0019	.0018	.0019
159	35.4059	-6.9240	9.0323	.0019	.0018	.0019
160	34.0246	-11.4772	8.9513	.0019	.0018	.0019
161	32.6517	-15.7272	9.1138	.0019	.0018	.0019
163	27.3284	-23.6539	9.0656	.0019	.0018	.0019
164	24.0524	-26.9576	9.0586	.0019	.0017	.0019
166	16.3127	-32.2664	9.0730	.0018	.0017	.0019
167	11.9347	-34.2425	9.1293	.0018	.0017	.0019
169	2.6811	-36.2807	9.1872	.0017	.0017	.0018
170	-1.9964	-36.1696	9.1092	.0016	.0017	.0018
171	-6.7722	-35.6937	9.1613	.0016	.0017	.0018
172	-11.3777	-34.4515	9.1362	.0016	.0017	.0018

TABLE 1. CONT. (1 DEGREE)

POINT NO.	X (FEET)	Y (FEET)	Z (FEET)	X SIGMA (FEET)	Y SIGMA (FEET)	Z SIGMA (FEET)
173	-15.9146	-32.7699	9.2149	.0015	.0017	.0018
174	-20.0219	-30.3979	9.1924	.0015	.0017	.0018
175	-23.5547	-27.5846	9.1315	.0014	.0017	.0017
176	-27.0257	-24.3238	9.1779	.0014	.0017	.0017
177	-29.9552	-20.6017	9.1766	.0014	.0017	.0017
178	-32.3244	-16.4000	9.1206	.0014	.0017	.0017
179	-34.1350	-12.1643	9.1128	.0013	.0017	.0017
180	-35.5174	-7.7039	9.1664	.0013	.0017	.0017
181	-36.0308	-2.6280	9.0483	.0013	.0017	.0017
182	-35.9988	2.0372	9.0143	.0013	.0017	.0017
183	-35.3308	6.6842	8.9708	.0013	.0017	.0017
184	-34.3117	11.1315	9.0253	.0013	.0017	.0017
185	-32.3396	15.7256	8.9696	.0013	.0017	.0017
186	-30.2710	19.7120	9.0483	.0013	.0017	.0017
187	-27.5851	23.4932	9.1098	.0013	.0017	.0017
188	-24.1000	26.8003	9.0188	.0014	.0017	.0017
189	-20.3480	29.8460	9.0613	.0014	.0017	.0017
190	-16.4724	32.2864	9.1254	.0014	.0017	.0018
191	-12.2131	34.0544	9.0857	.0015	.0017	.0018
192	-7.5327	35.3504	9.0734	.0015	.0017	.0018
193	-4.3058	32.7096	7.5658	.0015	.0017	.0018
194	-.0244	33.2559	7.6786	.0016	.0017	.0018
195	4.2280	32.9040	7.6440	.0016	.0017	.0019
198	16.6201	28.5935	7.5936	.0017	.0018	.0019
199	20.2301	26.1708	7.6012	.0017	.0018	.0019
200	23.4846	23.2729	7.5887	.0018	.0018	.0019
201	26.2996	19.9577	7.5672	.0018	.0018	.0019
202	28.7161	16.6257	7.6436	.0018	.0018	.0019
204	31.9528	8.4530	7.5682	.0019	.0018	.0019
205	32.8008	4.1526	7.5865	.0019	.0018	.0019
207	32.9038	-4.3990	7.6458	.0019	.0018	.0019
208	31.7332	-9.0216	7.5572	.0019	.0018	.0019
209	30.4222	-12.9334	7.5844	.0019	.0018	.0019
210	28.4766	-16.8175	7.5993	.0019	.0018	.0019
212	23.3653	-23.5738	7.6501	.0018	.0018	.0019
213	20.0037	-26.4560	7.6481	.0018	.0017	.0019
214	16.4161	-28.8482	7.6535	.0018	.0017	.0019
215	12.3006	-30.7745	7.6258	.0018	.0017	.0019
217	4.0829	-32.9213	7.6412	.0017	.0017	.0019
218	-.2334	-33.1970	7.6537	.0017	.0017	.0018
219	-4.4904	-32.9185	7.6579	.0016	.0017	.0018
220	-9.0296	-32.0561	7.7036	.0016	.0017	.0018
221	-12.9206	-30.7041	7.7026	.0015	.0017	.0018
222	-16.7880	-28.6462	7.6546	.0015	.0017	.0018
223	-20.3823	-26.3703	7.7052	.0015	.0017	.0018
224	-23.3463	-23.3248	7.5641	.0014	.0017	.0017
225	-26.5095	-20.1595	7.6973	.0014	.0017	.0017
226	-28.8621	-16.3871	7.6463	.0014	.0017	.0017
227	-30.8264	-12.4856	7.6759	.0014	.0017	.0017
228	-32.1635	-8.4577	7.6765	.0014	.0017	.0017
229	-32.8682	-4.2266	7.6169	.0013	.0017	.0017

TABLE 1. CONT. | DEGREE)

POINT NO.	X (FEET)	Y (FEET)	Z (FEET)	X SIGMA (FEET)	Y SIGMA (FEET)	Z SIGMA (FEET)
230	-33.2211	.0671	7.6487	.0013	.0017	.0017
231	-33.1309	4.2342	7.7424	.0013	.0017	.0017
232	-32.0464	8.8224	7.6600	.0013	.0017	.0017
233	-30.7085	12.7633	7.6799	.0013	.0017	.0017
234	-28.9083	16.6053	7.7109	.0014	.0017	.0017
235	-26.2885	20.1708	7.6187	.0014	.0017	.0017
236	-23.6282	23.4448	7.6950	.0014	.0017	.0017
237	-20.0901	26.2317	7.5829	.0014	.0017	.0017
238	-16.6001	28.7578	7.6578	.0014	.0017	.0018
239	-12.5533	30.5809	7.5890	.0015	.0017	.0018
240	-8.6413	32.0117	7.6376	.0015	.0017	.0018
290	.0195	28.6674	5.7005	.0016	.0018	.0018
294	14.4206	24.7196	5.6818	.0017	.0018	.0019
296	20.4171	19.9925	5.6621	.0018	.0018	.0019
298	24.8483	14.0219	5.6467	.0018	.0018	.0019
306	24.5300	-14.1673	5.5726	.0018	.0018	.0019
308	19.9782	-20.6087	5.7217	.0018	.0018	.0019
310	13.7512	-25.0288	5.6615	.0018	.0017	.0019
312	6.9757	-27.8837	5.7377	.0017	.0017	.0019
316	-7.8201	-27.6724	5.7490	.0016	.0017	.0018
318	-14.7037	-24.7301	5.7449	.0015	.0017	.0018
320	-20.5783	-20.0735	5.7336	.0015	.0017	.0018
322	-24.9688	-14.0275	5.6947	.0014	.0017	.0017
324	-27.9043	-7.2140	5.7681	.0014	.0017	.0017
326	-28.7365	.3633	5.7213	.0014	.0017	.0017
328	-27.7649	7.7262	5.7601	.0014	.0018	.0017
330	-24.8112	14.5106	5.7236	.0014	.0018	.0017
332	-20.1851	20.3167	5.6959	.0014	.0017	.0018
334	-14.2663	24.9070	5.7225	.0015	.0017	.0018
336	-7.2724	27.7410	5.7112	.0015	.0017	.0018
386	3.2613	23.7355	3.9879	.0016	.0018	.0019
388	14.6455	18.5622	3.8799	.0017	.0018	.0019
389	18.9714	14.1578	3.8883	.0018	.0018	.0019
390	22.1850	8.6803	3.9329	.0018	.0018	.0019
391	23.4533	2.5682	3.8588	.0018	.0018	.0019
392	23.4286	-3.5805	3.8967	.0018	.0018	.0019
393	21.9033	-9.6397	3.9793	.0018	.0018	.0019
395	14.4254	-19.3328	4.0398	.0018	.0018	.0019
396	8.8933	-22.4091	4.0354	.0017	.0017	.0019
397	2.4337	-23.8296	3.9893	.0017	.0017	.0019
398	-3.6871	-23.6482	3.9823	.0016	.0017	.0019
400	-14.9510	-18.8863	4.0264	.0015	.0017	.0018
401	-19.3668	-14.4891	4.0616	.0015	.0017	.0018
402	-22.3653	-9.0934	4.0501	.0014	.0017	.0018
403	-23.8091	-2.9089	4.0021	.0014	.0018	.0018
404	-23.7077	3.3095	3.9811	.0014	.0018	.0018
405	-22.1091	9.3717	4.0109	.0014	.0018	.0018
406	-19.0826	14.7645	4.0482	.0014	.0018	.0018
407	-14.3147	19.2888	4.0114	.0015	.0018	.0018
408	-9.1317	22.2197	4.0112	.0015	.0018	.0018
409	5.2446	20.4875	3.1043	.0016	.0018	.0019

TABLE 1. CONT. (1 DEGREE)

POINT NO.	X (FEET)	Y (FEET)	Z (FEET)	X SIGMA (FEET)	Y SIGMA (FEET)	Z SIGMA (FEET)
410	10.2593	18.2562	3.0444	.0017	.0018	.0019
411	14.7706	14.8243	3.0351	.0017	.0018	.0019
412	18.2922	10.4643	3.0847	.0018	.0018	.0019
413	20.1565	5.4035	3.0188	.0018	.0018	.0019
415	18.3420	-10.8927	3.1543	.0018	.0018	.0019
417	10.6390	-18.5230	3.1661	.0017	.0018	.0019
418	5.4936	-20.4932	3.1285	.0017	.0018	.0019
420	-10.6141	-18.7160	3.2162	.0016	.0017	.0018
424	-20.8239	5.4929	3.2201	.0014	.0018	.0018
425	-18.4520	10.4887	3.1297	.0015	.0018	.0018
426	-15.2292	14.9028	3.1524	.0015	.0018	.0018
427	-10.6866	18.2323	3.1015	.0015	.0018	.0018
431	6.8676	15.5505	2.0085	.0017	.0018	.0019
432	10.8397	13.0183	1.9947	.0017	.0018	.0019
433	13.9518	9.9473	2.0383	.0017	.0018	.0019
434	15.9983	6.1132	2.0291	.0018	.0018	.0019
436	16.7526	-2.9147	2.0015	.0018	.0018	.0019
437	16.0073	-6.9418	2.1117	.0018	.0018	.0019
439	9.9394	-14.1028	2.0675	.0017	.0018	.0019
440	5.9951	-16.2318	2.0763	.0017	.0018	.0019
441	1.7011	-17.2552	2.0866	.0017	.0018	.0019
442	-2.9342	-17.0424	2.0724	.0016	.0018	.0019
443	-7.0426	-15.8505	2.0873	.0016	.0018	.0019
444	-10.9883	-13.3017	2.0668	.0016	.0018	.0018
445	-14.0846	-9.9556	2.0616	.0015	.0018	.0018
447	-17.2977	-1.6891	2.0943	.0015	.0018	.0018
448	-17.0035	2.7301	2.0562	.0015	.0018	.0018
449	-16.0340	6.6983	2.0992	.0015	.0018	.0018
450	-13.3011	10.9108	2.0573	.0015	.0018	.0018
451	-10.0102	13.9168	2.0392	.0015	.0018	.0018
452	-6.2904	16.0585	2.0672	.0016	.0018	.0018
453	-.2708	13.9933	1.3640	.0016	.0018	.0019
454	3.2868	13.0626	1.2600	.0016	.0018	.0019
455	6.4912	11.7446	1.2519	.0017	.0018	.0019
456	9.4866	9.6014	1.2656	.0017	.0018	.0019
459	13.4536	.0108	1.2547	.0017	.0018	.0019
460	13.1930	-3.6386	1.2928	.0017	.0018	.0019
462	9.6064	-9.7381	1.3004	.0017	.0018	.0019
463	6.7868	-11.8271	1.2906	.0017	.0018	.0019
465	-.0810	-13.7132	1.3061	.0016	.0018	.0019
466	-3.6280	-13.3785	1.3340	.0016	.0018	.0019
467	-6.8601	-12.0671	1.3351	.0016	.0018	.0019
468	-9.5439	-9.6433	1.2749	.0016	.0018	.0018
469	-11.9570	-6.9650	1.3272	.0015	.0018	.0018
470	-13.1100	-3.7390	1.2863	.0015	.0018	.0018
471	-13.7893	-.1944	1.3180	.0015	.0018	.0018
472	-13.2403	3.3861	1.2955	.0015	.0018	.0018
473	-11.8730	6.7277	1.2978	.0015	.0018	.0018
474	-9.6681	9.2903	1.2485	.0015	.0018	.0018
475	-7.1436	11.8436	1.3262	.0016	.0018	.0018
476	-3.7767	13.1935	1.3095	.0016	.0018	.0019

TABLE 1. CONT. (1 DEGREE)

POINT NO.	X (FEET)	Y (FEET)	Z (FEET)	X SIGMA (FEET)	Y SIGMA (FEET)	Z SIGMA (FEET)
477	-.7021	9.0646	.5760	.0016	.0018	.0019
478	3.8476	7.9516	.5430	.0017	.0018	.0019
479	7.2591	4.9640	.5414	.0017	.0018	.0019
481	8.0030	-4.0086	.5569	.0017	.0018	.0019
482	4.9164	-7.5361	.5668	.0017	.0018	.0019
483	.5008	-9.0010	.5673	.0016	.0018	.0019
484	-4.0236	-8.0809	.5661	.0016	.0018	.0019
485	-7.4707	-5.2473	.5812	.0016	.0018	.0019
486	-9.2035	-.7357	.5919	.0016	.0018	.0018
487	-8.3146	3.6668	.5739	.0016	.0018	.0019
488	-4.8690	7.4693	.5511	.0016	.0018	.0019
489	.7720	6.2584	.2749	.0016	.0018	.0019
490	3.5923	4.8527	.2518	.0017	.0018	.0019
492	6.2299	-.8869	.2751	.0017	.0018	.0019
493	5.1264	-4.0285	.2987	.0017	.0018	.0019
494	2.1510	-5.8804	.2744	.0017	.0018	.0019
495	-1.2584	-6.4436	.2979	.0016	.0018	.0019
496	-3.9811	-5.1316	.2910	.0016	.0018	.0019
497	-6.0363	-2.5366	.2918	.0016	.0018	.0019
498	-6.5528	.6560	.2996	.0016	.0018	.0019
499	-5.0872	3.6263	.2665	.0016	.0018	.0019
500	-2.5222	5.8244	.2758	.0016	.0018	.0019
501	-.1212	-.0725	.0042	.0016	.0018	.0019
512	-23.3845	-1.4301	9.9556	.0014	.0018	.0017
514	-17.7435	-1.3315	23.1696	.0014	.0018	.0016
516	-10.0136	-1.8986	38.3078	.0014	.0017	.0014
517	-9.9105	1.7736	38.4784	.0014	.0018	.0014
518	-14.3608	.9269	30.3123	.0014	.0018	.0015
519	-17.7717	.8466	23.1342	.0014	.0018	.0016
520	-20.5604	.8113	16.3036	.0014	.0018	.0016
521	-23.4241	.7490	9.9087	.0014	.0018	.0017
550	-3.0315	3.8459	44.4403	.0014	.0017	.0014
551	-2.3673	3.7221	44.4433	.0014	.0017	.0014
552	2.3202	-3.6739	44.4215	.0015	.0017	.0014
553	3.0119	-3.8192	44.4139	.0015	.0017	.0014
602	32.9918	24.5889	11.7502	.0018	.0018	.0019
603	40.7176	-6.0957	11.7559	.0019	.0018	.0019
604	35.7702	-21.2617	12.0197	.0019	.0018	.0019
606	-6.1886	-40.8683	11.8684	.0016	.0016	.0018
607	-21.3487	-35.8821	12.1048	.0015	.0017	.0017
608	-33.1483	-24.7785	11.8933	.0014	.0017	.0017
611	-24.7358	33.1960	11.9078	.0013	.0017	.0017
613	23.6441	22.4924	7.3952	.0018	.0018	.0019
614	31.2697	-9.2405	7.3778	.0019	.0018	.0019
615	22.6912	-23.5270	7.4194	.0018	.0018	.0019
616	-9.3725	-31.5133	7.5070	.0016	.0017	.0018
617	-23.5112	-22.6982	7.4137	.0014	.0017	.0017
618	-31.6097	9.1474	7.5067	.0013	.0017	.0017
620	14.4922	23.9982	5.4570	.0017	.0018	.0019
621	23.9101	-14.5641	5.4444	.0016	.0018	.0019
622	-14.9115	-24.1061	5.5786	.0015	.0017	.0018
623	-24.1926	14.6330	5.5417	.0014	.0018	.0017

TABLE 1. CONT. (1 DEGREE)

POINT NO.	X (FEET)	Y (FEET)	Z (FEET)	X SIGMA (FEET)	Y SIGMA (FEET)	Z SIGMA (FEET)
624	7.0931	14.8820	1.8888	.0017	.0018	.0019
625	15.2102	-7.1992	1.9622	.0018	.0018	.0019
626	-7.2586	-15.2076	1.9719	.0016	.0018	.0019
627	-15.4327	7.0141	1.9952	.0015	.0018	.0018
900	5.7238	40.9711	12.0452	.0016	.0017	.0018
902	32.9524	24.8967	12.0321	.0018	.0018	.0019
903	40.8944	-5.9179	11.9845	.0019	.0018	.0019
904	36.0928	-21.1397	12.3419	.0019	.0018	.0019
906	-5.9714	-41.0882	12.1525	.0016	.0016	.0018
907	-21.2144	-36.1294	12.2953	.0015	.0017	.0017
908	-33.2689	-25.1029	12.1122	.0014	.0017	.0017
909	-41.4217	5.5908	12.2558	.0013	.0017	.0016
910	-35.7388	21.0480	12.0865	.0013	.0017	.0016
911	-25.0707	33.2020	12.1992	.0013	.0017	.0017
913	23.5442	22.8366	7.5294	.0018	.0018	.0019
914	31.4402	-9.1563	7.5158	.0019	.0018	.0019
915	22.9608	-23.5411	7.6545	.0018	.0018	.0019
916	-9.1751	-31.7920	7.6300	.0016	.0017	.0018
917	-23.4271	-22.9580	7.6436	.0014	.0017	.0017
918	-31.8337	8.9884	7.6836	.0013	.0017	.0017
920	14.4214	24.3215	5.6643	.0017	.0018	.0019
921	24.1807	-14.4694	5.6509	.0018	.0018	.0019
922	-14.7815	-24.3936	5.7345	.0015	.0017	.0018
923	-24.5001	14.5803	5.6745	.0014	.0018	.0017
924	6.9755	15.2173	2.0107	.0017	.0018	.0019
926	-7.1261	-15.5144	2.1356	.0016	.0018	.0019
927	-15.7623	6.8070	2.1215	.0015	.0018	.0018
928	-2.6977	3.7643	44.4988	.0014	.0017	.0014
929	2.6679	-3.7308	44.4475	.0015	.0017	.0014
1039	-41.6335	5.9406	12.2671	.0013	.0017	.0016
1042	-35.7672	21.4305	12.0570	.0013	.0017	.0016
1600	5.4297	40.8805	11.8010	.0016	.0017	.0018

TABLE 2. PLATE-COORDINATE RESIDUALS FROM TARGET POINTS. (| DEGREE)

POINT NO.	CAMERA NO. 1 VX (MICRONS)	CAMERA NO. 1 VY (MICRONS)	CAMERA NO. 2 VX (MICRONS)	CAMERA NO. 2 VY (MICRONS)
1	-.2	1.1	.0	-1.4
2	.7	-4.2	.2	5.4
3	.9	-5.0	.3	6.3
4	.4	-2.3	.2	2.9
8	-.8	3.1	-.4	-3.7
9	-.3	1.2	-.1	-1.5
10	-.8	2.7	-.4	-3.1
11	-2.0	6.2	-1.0	-7.1
12	-1.4	4.4	-.7	-4.8
13	-1.3	4.2	-.7	-4.5
14	-.3	.9	-.1	-1.0
15	-.0	-.0	-.0	-.0
16	-.8	2.4	-.3	-2.3
17	-.7	2.1	-.3	-2.0
18	-.5	1.7	-.2	-1.6
19	-.6	1.9	-.2	-1.7
20	-.4	1.4	-.1	-1.2
25	.6	-2.8	.2	2.2
26	-.3	1.2	.0	-.9
27	-1.2	5.9	-.1	-4.5
28	-.9	5.0	-.0	-3.8
29	-.8	5.1	.0	-3.9
30	-.5	4.0	.0	-3.1
31	.7	-5.7	-.1	4.4
32	.3	-2.8	-.1	2.2
33	.6	-7.4	-.3	5.9
34	-.1	1.9	.1	-1.6
35	-.0	1.1	.0	-.9
36	.1	-3.5	-.3	3.0
37	.0	-1.4	-.1	1.2
38	.1	-3.3	-.3	3.0
39	.2	-7.2	-.7	6.9
40	.0	-.6	-.0	.5
42	.0	-1.4	-.1	1.5
43	-.3	4.9	.5	-5.4
44	-.2	2.6	.2	-3.0
46	-.3	2.8	.1	-3.3
47	-.4	3.2	.1	-4.0
48	-.1	1.0	.0	-1.2
49	.4	-2.9	.1	3.7
51	-.2	.9	-.0	-1.1
53	.0	-.4	.0	.5
55	-.1	.6	-.0	-.7
57	-.4	1.4	-.2	-1.7
59	-.7	2.2	-.3	-2.5
61	-.6	1.9	-.2	-2.0
63	.1	-.5	.0	.5
65	-.9	2.9	-.4	-2.7
73	-.1	.3	.0	-.2

TABLE 2. CONT. (1 DEGREE)

POINT NO.	CAMERA NO. 1 VX (MICRONS)	CAMERA NO. 1 VY (MICRONS)	CAMERA NO. 2 VX (MICRONS)	CAMERA NO. 2 VY (MICRONS)
75	-.5	2.7	.0	-2.1
77	-.9	6.1	.0	-4.7
79	.1	-1.3	-.0	1.1
81	.1	-1.9	-.1	1.5
83	.5	-7.6	-.6	6.5
85	.0	-1.0	-.0	.9
87	.1	-3.3	-.3	3.2
89	.1	-1.9	-.2	2.0
91	.2	-2.6	-.2	2.9
93	-.3	3.1	.1	-3.7
95	-.2	1.8	.0	-2.2
97	.3	-1.8	.0	2.2
99	.1	-.7	.0	.8
103	.5	-1.9	.2	2.3
105	-.6	2.3	-.3	-2.7
107	-.9	2.9	-.4	-3.2
109	-.3	1.0	-.1	-1.1
113	-.3	1.1	-.1	-1.1
119	.7	-2.9	.2	2.4
123	-.0	-.0	.0	.0
125	.5	-3.5	.0	2.7
127	.0	-.7	-.0	.5
129	-.0	.6	.0	-.5
131	.1	-1.6	-.1	1.3
133	.1	-2.9	-.2	2.6
135	-.0	.1	.0	-.2
137	-.0	.2	.0	-.3
139	.0	-1.1	-.1	1.2
141	.0	-.0	-.0	.1
143	.2	-1.5	-.0	1.8
145	-.0	.3	.0	-.4
146	1.0	-5.7	.2	7.0
147	-.2	1.1	-.0	-1.3
148	-.1	.5	-.0	-.7
149	.8	-3.7	.3	4.5
150	-.8	3.2	-.3	-3.8
151	.0	-.0	-.0	.0
155	.3	-1.0	.1	1.1
156	-.8	2.7	-.3	-2.9
157	-.1	.4	-.0	-.5
158	-.6	2.1	-.3	-2.2
159	-.3	.9	-.1	-.9
160	1.0	-3.5	.4	3.4
161	-.2	.7	-.0	-.7
163	.7	-2.6	.2	2.4
164	.6	-2.4	.2	2.1
166	1.0	-3.8	.3	3.2
167	.0	-.2	.0	.1
169	.7	-3.5	.1	2.8
170	.0	-.5	.0	.4

TABLE 2. CONT. (1 DEGREE)

POINT NO.	CAMERA NO. 1 VX (MICRONS)	CAMERA NO. 1 VY (MICRONS)	CAMERA NO. 2 VX (MICRONS)	CAMERA NO. 2 VY (MICRONS)
171	.4	-2.5	.0	1.9
172	-.4	2.3	.0	-1.8
173	.0	-.5	.0	.4
174	-.0	.2	.0	-.2
175	.1	-1.5	-.0	1.2
176	.4	-4.1	-.1	3.4
177	-.0	.6	.0	-.5
178	.3	-3.3	-.2	2.8
179	-.0	.2	.0	-.2
180	.1	-1.4	-.1	1.2
181	.2	-3.6	-.2	3.3
182	-.1	1.6	.1	-1.6
183	-.0	1.2	.1	-1.2
184	.2	-3.6	-.3	3.6
185	.0	-.6	-.0	.6
186	-.3	3.9	.3	-4.2
187	.2	-2.6	-.2	2.9
188	-.2	2.9	.1	-3.3
189	-.1	1.3	.0	-1.5
190	.0	.1	.0	-.1
191	-.1	.7	.0	-.9
192	.0	-.2	.0	.2
193	-.1	.7	.0	-.9
194	-.0	.5	.0	-.6
195	.7	-3.5	.1	4.3
198	.0	-.1	-.0	.0
199	.0	-.3	.0	.4
200	-.6	2.4	-.2	-2.7
201	1.0	-3.9	.4	4.4
202	.2	-.8	.0	.9
204	-.5	1.7	-.2	-1.8
205	.0	-.2	.0	.2
207	1.5	-5.1	.6	5.1
208	-.7	2.5	-.3	-2.5
209	1.1	-3.9	.4	3.7
210	.9	-3.4	.3	3.1
212	.6	-2.1	.2	1.8
213	1.3	-5.1	.4	4.4
214	.8	-3.3	.2	2.9
215	1.2	-4.9	.3	4.1
217	.2	-1.3	.0	1.0
218	.1	-.6	.0	.5
219	.0	-.1	.0	.1
220	.4	-2.1	.0	1.7
221	.6	-3.9	.0	3.2
222	-.4	2.8	.0	-2.2
223	-.2	1.8	.0	-1.5
224	.0	-.4	-.0	.4
225	-.7	7.1	.3	-5.9
226	-.0	-.1	-.0	.1

TABLE 2. CONT. (| DEGREE)

POINT NO.	CAMERA NO. 1 VX (MICRONS)	CAMERA NO. 1 VY (MICRONS)	CAMERA NO. 2 VX (MICRONS)	CAMERA NO. 2 VY (MICRONS)
227	.0	-.5	-.0	.4
228	.4	-5.1	-.3	4.6
229	.2	-3.3	-.2	3.1
230	-.0	.8	.0	-.8
231	-.1	1.4	.1	-1.3
232	.0	-.6	-.0	.6
233	.0	.0	.0	-.0
234	.0	-.1	-.0	.1
235	-.4	4.7	.3	-5.1
236	-.4	4.3	.2	-4.8
237	-.5	5.0	.2	-5.6
238	.3	-2.6	-.1	3.0
239	.5	-3.4	-.0	4.0
240	-.2	1.6	-.0	-1.9
290	.0	-.4	-.0	.4
294	-.3	1.2	-.1	-1.4
296	.4	-1.7	.1	1.9
298	1.7	-6.7	.6	7.3
306	.6	-2.1	.2	2.0
308	.2	-1.0	.0	.9
310	.1	-.4	.0	.3
312	-.0	.1	-.0	-.1
316	-.9	5.1	-.0	-4.2
318	-.6	4.1	.0	-3.4
320	-.1	.7	.0	-.6
322	-.5	4.6	.2	-4.0
324	-.3	3.6	.2	-3.2
326	-.2	2.3	.1	-2.2
328	-.2	2.9	.2	-2.9
330	-.1	1.6	.1	-1.7
332	-.4	4.0	.2	-4.3
334	-.4	3.4	.1	-3.9
336	.3	-2.4	-.0	2.8
386	-.1	1.0	-.0	-1.2
388	-.3	1.3	-.0	-1.5
389	.2	-1.2	.0	1.3
390	1.8	-7.2	.6	7.7
391	1.5	-6.0	.5	6.1
392	1.0	-4.0	.3	4.0
393	.9	-3.7	.3	3.6
395	.8	-3.4	.2	3.1
396	.4	-2.0	.1	1.8
397	1.3	-6.5	.2	5.6
398	.1	-.8	.0	.7
400	-.1	1.1	.0	-1.0
401	-.5	4.1	.1	-3.6
402	-.1	1.4	.0	-1.3
403	-.8	7.9	.4	-7.4
404	-.0	.4	.0	-.4
405	-.4	4.3	.2	-4.4
406	-.4	3.8	.1	-4.0

TABLE 2. CONT. (1 DEGREE)

POINT NO.	CAMERA NO. 1 VX (MICRONS)	CAMERA NO. 1 VY (MICRONS)	CAMERA NO. 2 VX (MICRONS)	CAMERA NO. 2 VY (MICRONS)
407	-.0	.2	.0	-.2
408	.2	-1.5	-.0	1.6
409	.4	-2.2	.0	2.5
410	.5	-2.4	.1	2.6
411	.9	-4.2	.3	4.5
412	-.3	1.3	-.0	-1.3
413	1.2	-4.9	.3	5.0
415	.5	-2.1	.1	2.0
417	.2	-1.1	.0	1.0
418	.3	-1.6	.0	1.5
420	-.2	1.3	.0	-1.1
424	-.2	1.6	.0	-1.6
425	-.7	6.3	.2	-6.4
426	.1	-.7	-.0	.8
427	-.3	2.6	.0	-2.8
431	-.6	3.1	-.1	-3.3
432	.4	-2.2	.1	2.4
433	.4	-2.1	.1	2.3
434	1.6	-7.1	.4	7.4
436	-.1	.4	-.0	-.5
437	.7	-3.3	.2	3.2
439	-.0	.3	-.0	-.3
440	.8	-4.0	.1	3.6
441	.6	-3.5	.0	3.1
442	.0	-.0	-.0	.0
443	.4	-2.8	.0	2.5
444	-.4	2.8	.0	-2.5
445	-.2	2.0	.0	-1.8
447	-.0	.8	.0	-.8
448	-.0	.7	.0	-.6
449	-.2	1.9	.0	-2.0
450	-.5	3.8	.1	-3.9
451	-.7	5.3	.1	-5.6
452	.3	-2.4	-.0	2.6
453	-.0	.2	.0	-.2
454	.3	-1.9	.0	2.1
455	.1	-.9	.0	.9
456	.8	-4.0	.1	4.2
459	.6	-3.0	.1	3.0
460	1.8	-8.0	.4	7.8
462	.2	-1.5	.0	1.4
463	.5	-2.6	.0	2.4
465	.0	-.5	.0	.4
466	-.0	.2	.0	-.1
467	.0	-.1	-.0	.1
468	-.2	1.8	.0	-1.6
469	-.4	3.0	.0	-2.8
470	-.4	3.5	.0	-3.4
471	-.4	3.2	.0	-3.1
472	-.2	1.8	.0	-1.8

TABLE 2. CONT. (1 DEGREE)

POINT NO.	CAMERA NO. 1 VX (MICRONS)	CAMERA NO. 1 VY (MICRONS)	CAMERA NO. 2 VX (MICRONS)	CAMERA NO. 2 VY (MICRONS)
479	.4	-2.3	.0	2.4
481	.6	-2.8	.1	2.7
482	.0	-.2	.0	.2
483	.7	-4.0	.0	3.8
484	.1	-.6	-.0	.5
485	.3	-1.8	-.0	1.7
486	-.1	.7	.0	-.6
487	-.2	1.6	.0	-1.6
488	-.1	1.2	.0	-1.3
489	.3	-2.1	.0	2.1
490	.0	-.6	.0	.7
492	.2	-1.3	.0	1.3
493	-.0	.1	-.0	-.1
494	.1	-.6	.0	.6
495	-.1	.8	-.0	-.8
496	-.3	2.1	-.0	-2.0
497	.2	-1.3	.0	1.2
498	-.2	1.3	-.0	-1.3
499	-.3	2.0	.0	-2.0
500	-.2	1.6	-.0	-1.6
501	.0	-.1	.0	.1
512	-.1	.6	.0	-.6
514	-.6	3.8	-.0	-3.7
516	-1.8	7.2	-.5	-7.0
517	-2.4	9.5	-.7	-9.4
518	-.2	1.3	-.0	-1.3
519	.1	-.9	.0	.9
520	-.0	.0	.0	-.0
521	.1	-1.0	-.0	1.0
550	-1.7	4.6	-.9	-7.0
551	-1.6	5.2	-.9	-10.7
552	-2.1	5.1	-1.2	-9.8
553	-2.9	5.2	-1.5	-10.0
602	-1.1	3.7	-.5	-4.4
603	-1.3	4.0	-.6	-4.0
604	-.2	.7	-.1	-.6
606	-.0	-.2	.0	.1
607	-.0	.4	.0	-.3
608	.3	-4.0	-.2	3.2
611	.0	-.3	-.0	.3
613	.5	-2.0	.2	2.3
614	.9	-3.1	.3	3.1
615	.9	-3.4	.3	3.0
616	.8	-4.6	.0	3.8
617	.3	-3.0	-.1	2.5
618	.2	-2.9	-.2	2.9
620	.2	-.9	.0	1.0
621	.8	-3.2	.3	3.0
622	-.5	4.1	.0	-3.4
623	-.1	1.7	.1	-1.8

TABLE 2. CONT. (1 DEGREE)

POINT NO.	CAMERA NO. 1 VX (MICRONS)	CAMERA NO. 1 VY (MICRONS)	CAMERA NO. 2 VX (MICRONS)	CAMERA NO. 2 VY (MICRONS)
624	.3	-1.7	.0	1.9
625	.7	-3.1	.2	3.0
626	-.0	.3	.0	-.3
627	.0	-.6	-.0	.6
900	.0	-.4	.0	.4
902	.5	-1.7	.2	2.0
903	-1.0	3.1	-.4	-3.1
904	.4	-1.3	.1	1.2
906	-.4	2.1	-.0	-1.6
907	-.7	5.0	.0	-3.8
908	.4	-4.3	-.2	3.5
909	.0	-1.9	-.1	1.8
910	-.0	.4	.0	-.4
911	-.2	2.4	.1	-2.8
913	.6	-2.6	.2	3.0
914	-.2	.7	-.0	-.7
915	.4	-1.4	.1	1.3
916	.3	-2.1	.0	1.7
917	-.5	4.1	.1	-3.3
918	.0	.0	.0	-.0
920	1.3	-6.0	.4	6.9
921	1.2	-4.4	.4	4.1
922	-.4	3.1	.0	-2.6
923	-.4	4.9	.3	-5.1
924	-.0	.2	-.0	-.2
926	.0	-.1	-.0	.0
927	.5	-4.1	-.1	4.1
929	-3.1	6.2	-1.2	-12.0
928	-2.7	7.7	-1.9	-16.2
1039	-.0	.1	.0	-.2
1042	-.2	3.1	.3	-3.3
1600	.0	-.6	.0	.7

TABLE 3. X,Y,Z, COMPONENT DEPARTURES AND PERPENDICULAR DEPARTURE OF TARGET POINTS FROM BEST-FITTING PARABOLOID OF REVOLUTION. (1 DEGREE)

POINT NO.	DX (FEET)	DY (FEET)	DZ (FEET)	D (FEET)
1	.0005	-.0040	.0071	.0082
2	0.0000	-.0010	.0017	.0020
3	-.0001	-.0007	.0013	.0015
4	-.0003	-.0011	.0020	.0023
8	-.0045	-.0044	.0110	.0127
9	-.0004	-.0003	.0010	.0011
10	.0009	.0005	-.0019	-.0022
11	.0026	.0010	-.0050	-.0057
12	.0014	.0003	-.0025	-.0029
13	.0024	.0002	-.0043	-.0049
14	.0005	0.0000	-.0008	-.0010
15	.0046	-.0006	-.0081	-.0094
16	-.0017	.0004	.0031	.0036
17	-.0018	.0007	.0034	.0039
18	-.0019	.0011	.0038	.0044
19	.0024	-.0019	-.0053	-.0062
20	-.0004	.0004	.0011	.0012
25	-.0002	.0018	.0032	.0037
26	0.0000	.0012	.0022	.0025
27	.0004	.0032	.0057	.0066
28	.0007	.0027	.0049	.0057
29	-.0004	-.0009	-.0017	-.0020
30	.0003	.0006	.0013	.0015
31	-.0013	-.0017	-.0037	-.0043
32	0.0000	0.0000	.0001	.0001
33	.0017	.0013	.0037	.0043
34	.0032	.0018	.0064	.0074
35	.0015	.0006	.0027	.0032
36	-.0006	-.0001	-.0010	-.0012
37	.0042	.0005	.0072	.0084
38	-.0048	0.0000	-.0083	-.0096
39	-.0028	.0003	-.0049	-.0057
40	.0029	-.0008	.0052	.0060
42	-.0041	.0024	-.0083	-.0096
43	-.0050	.0039	-.0110	-.0127
44	0.0000	0.0000	0.0000	-.0001
46	.0015	-.0026	.0053	.0061
47	.0008	-.0019	.0036	.0042
48	.0011	-.0043	.0077	.0089
49	0.0000	.0004	-.0007	-.0008
51	.0001	.0007	-.0014	-.0016
53	-.0010	-.0022	.0045	.0051
55	-.0037	-.0043	.0103	.0117
57	.0008	.0005	-.0018	-.0021
59	.0037	.0012	-.0071	-.0081
61	.0014	.0001	-.0026	-.0030
63	.0021	-.0004	-.0039	-.0045
65	.0007	-.0003	-.0015	-.0017
73	0.0000	-.0001	-.0003	-.0003
75	.0004	.0022	.0040	.0046

TABLE 3. CONT. (1 DEGREE)

POINT NO.	DX (FEET)	DY (FEET)	DZ (FEET)	D (FEET)
77	-.0004	-.0010	-.0020	-.0023
79	-.0011	-.0013	-.0031	-.0036
81	.0015	.0010	.0032	.0036
83	-.0005	-.0001	-.0009	-.0011
85	-.0023	-.0001	-.0043	-.0049
87	-.0024	.0004	-.0043	-.0049
89	-.0001	0.0000	-.0003	-.0004
91	-.0029	.0024	-.0068	-.0078
93	.0022	-.0033	.0071	.0082
95	.0004	-.0012	.0024	.0027
97	.0003	-.0025	.0048	.0054
99	.0001	.0008	-.0017	-.0019
103	-.0009	-.0012	.0030	.0034
105	.0002	.0002	-.0006	-.0007
107	-.0005	-.0002	.0011	.0013
109	.0023	.0002	-.0045	-.0051
113	-.0002	0.0000	.0004	.0005
119	-.0005	.0013	.0028	.0031
123	.0002	.0017	.0033	.0037
125	0.0000	0.0000	-.0001	-.0002
127	-.0006	-.0007	-.0018	-.0021
129	.0016	.0012	.0039	.0044
131	.0018	.0007	.0037	.0042
133	-.0009	-.0001	-.0018	-.0021
135	-.0011	.0001	-.0021	-.0024
137	-.0002	.0001	-.0005	-.0005
139	-.0034	.0026	-.0084	-.0095
141	.0018	-.0024	.0058	.0065
143	0.0000	.0001	-.0002	-.0002
145	0.0000	-.0002	.0005	.0006
146	0.0000	.0012	-.0024	-.0027
147	.0003	.0018	-.0036	-.0041
148	-.0004	-.0014	.0030	.0034
149	.0001	.0002	-.0005	-.0005
150	-.0014	-.0022	.0052	.0058
151	.0001	.0002	-.0005	-.0006
155	.0052	.0017	-.0109	-.0122
156	.0038	.0007	-.0078	-.0088
157	.0017	.0001	-.0034	-.0039
158	0.0000	0.0000	0.0000	0.0000
159	.0009	-.0001	-.0018	-.0021
160	-.0003	.0001	.0006	.0007
161	.0013	-.0006	-.0030	-.0034
163	.0007	-.0006	-.0020	-.0022
164	.0004	-.0005	-.0014	-.0015
166	.0002	-.0004	-.0010	-.0011
167	-.0001	.0004	.0010	.0011
169	0.0000	0.0000	.0001	.0001
170	0.0000	0.0000	.0001	.0002
171	0.0000	-.0003	-.0007	-.0008
172	-.0001	-.0005	-.0010	-.0012

TABLE 3. CONT. (1 DEGREE)

POINT NO.	DX (FEET)	DY (FEET)	DZ (FEET)	D (FEET)
173	.0004	.0008	.0018	.0021
174	-.0010	-.0015	-.0036	-.0040
175	-.0004	-.0005	-.0014	-.0015
176	.0002	.0002	.0006	.0007
177	.0005	.0003	.0013	.0014
178	.0001	0.0000	.0004	.0004
179	-.0010	-.0003	-.0021	-.0024
180	-.0009	-.0001	-.0018	-.0020
181	-.0045	-.0003	-.0090	-.0101
182	-.0040	.0002	-.0081	-.0091
183	-.0016	.0003	-.0034	-.0038
184	-.0027	.0008	-.0057	-.0063
185	-.0024	.0012	-.0054	-.0061
186	-.0032	.0021	-.0078	-.0087
187	-.0011	.0009	-.0029	-.0032
188	.0003	-.0003	.0009	.0010
189	.0008	-.0012	.0030	.0033
190	.0010	-.0021	.0046	.0052
191	0.0000	0.0000	0.0000	.0001
192	.0004	-.0019	.0039	.0044
193	.0004	-.0038	.0083	.0092
194	0.0000	-.0005	.0012	.0014
195	-.0002	-.0016	.0036	.0040
198	-.0001	-.0002	.0006	.0007
199	-.0013	-.0017	.0049	.0054
200	-.0001	-.0001	.0003	.0004
201	-.0003	-.0002	.0008	.0009
202	-.0002	-.0001	.0006	.0006
204	.0054	.0014	-.0123	-.0136
205	.0005	0.0000	-.0012	-.0014
207	.0014	-.0002	-.0032	-.0035
208	-.0007	.0002	.0016	.0018
209	.0004	-.0001	-.0010	-.0011
210	-.0022	.0013	.0057	.0063
212	-.0007	.0007	.0023	.0025
213	-.0027	.0036	.0098	.0108
214	-.0011	.0019	.0049	.0054
215	-.0001	.0004	.0011	.0012
217	0.0000	.0007	.0017	.0018
218	0.0000	.0013	.0028	.0031
219	-.0002	-.0015	-.0034	-.0037
220	.0003	.0013	.0030	.0033
221	0.0000	-.0001	-.0003	-.0003
222	.0003	.0006	.0015	.0017
223	-.0013	-.0017	-.0047	-.0052
224	.0010	.0010	.0033	.0037
225	-.0006	-.0004	-.0016	-.0018
226	0.0000	0.0000	-.0002	-.0002
227	-.0009	-.0003	-.0021	-.0023
228	-.0003	0.0000	-.0008	-.0009
229	-.0023	-.0002	-.0050	-.0056
230	-.0046	0.0000	-.0101	-.0111

TABLE 3. CONT. (1 DEGREE)

POINT NO.	DX (FEET)	DY (FEET)	DZ (FEET)	D (FEET)
231	-.0005	0.0000	-.0013	-.0014
232	-.0033	.0009	-.0074	-.0082
233	.0010	-.0004	.0025	.0028
234	-.0013	.0007	-.0034	-.0037
235	-.0008	.0006	-.0022	-.0025
236	.0011	-.0011	.0033	.0037
237	.0010	-.0014	.0038	.0042
238	.0007	-.0013	.0034	.0038
239	.0004	-.0011	.0027	.0030
240	.0005	-.0021	.0048	.0053
290	0.0000	.0014	-.0036	-.0039
294	.0003	.0006	-.0017	-.0019
296	.0015	.0014	-.0053	-.0057
298	.0012	.0006	-.0035	-.0037
306	-.0007	.0004	.0021	.0023
308	-.0006	.0007	.0024	.0026
310	0.0000	.0001	.0003	.0003
312	-.0002	.0009	.0024	.0025
316	.0008	.0029	.0076	.0082
318	-.0002	-.0003	-.0010	-.0011
320	-.0007	-.0007	-.0026	-.0028
322	.0003	.0001	.0009	.0010
324	.0005	.0001	.0015	.0016
326	-.0040	0.0000	-.0102	-.0110
328	-.0017	.0005	-.0046	-.0050
330	-.0033	.0019	-.0096	-.0104
332	.0005	-.0005	.0020	.0021
334	.0005	-.0010	.0029	.0032
336	.0001	-.0007	.0018	.0019
386	-.0001	-.0010	.0030	.0032
388	.0001	.0001	-.0006	-.0007
389	.0003	.0002	-.0012	-.0013
390	.0018	.0007	-.0059	-.0062
391	.0015	.0001	-.0047	-.0049
392	.0007	-.0001	-.0022	-.0023
393	-.0010	.0004	.0036	.0038
395	-.0001	.0002	.0007	.0008
396	0.0000	.0001	.0004	.0005
397	-.0001	.0019	.0057	.0060
398	.0002	.0017	.0053	.0056
400	-.0002	-.0002	-.0010	-.0011
401	.0001	.0001	.0006	.0007
402	.0010	.0004	.0034	.0036
403	.0025	.0002	.0075	.0080
404	.0010	-.0001	.0031	.0033
405	.0022	-.0009	.0073	.0077
406	.0017	-.0013	.0065	.0068
407	.0011	-.0015	.0056	.0059
408	.0005	-.0014	.0046	.0049
409	0.0000	0.0000	-.0002	-.0002
410	0.0000	0.0000	.0002	.0002

TABLE 3. CONT. (1 DEGREE)

POINT NO.	DX (FEET)	DY (FEET)	DZ (FEET)	D (FEET)
411	.0009	.0009	-.0044	-.0046
412	-.0004	-.0002	.0017	.0018
413	.0010	.0002	-.0037	-.0039
415	.0010	-.0006	-.0042	-.0044
417	.0001	-.0003	-.0011	-.0012
418	-.0002	.0009	.0034	.0035
420	.0003	.0006	.0023	.0024
424	.0001	0.0000	.0005	.0005
425	.0006	-.0003	.0024	.0025
426	.0001	-.0001	.0007	.0007
427	.0001	-.0002	.0011	.0011
431	-.0002	-.0005	.0024	.0024
432	-.0003	-.0004	.0025	.0026
433	0.0000	0.0000	.0002	.0002
434	.0014	.0005	-.0066	-.0068
436	.0012	-.0002	-.0052	-.0053
437	.0003	-.0001	-.0013	-.0014
439	-.0001	.0002	.0010	.0010
440	.0001	-.0004	-.0019	-.0020
441	0.0000	0.0000	-.0002	-.0002
442	-.0001	-.0007	-.0032	-.0033
443	0.0000	-.0002	-.0009	-.0009
444	0.0000	0.0000	.0004	.0004
445	-.0006	-.0004	-.0032	-.0032
447	-.0005	0.0000	-.0022	-.0023
448	-.0005	0.0000	-.0023	-.0024
449	.0006	-.0002	.0030	.0030
450	.0005	-.0004	.0027	.0028
451	0.0000	.0001	-.0006	-.0007
452	.0002	-.0005	.0023	.0024
453	0.0000	-.0008	.0041	.0042
454	0.0000	-.0001	.0005	.0006
455	-.0001	-.0003	.0018	.0019
456	-.0001	-.0001	.0009	.0010
459	.0003	0.0000	-.0016	-.0016
460	.0012	-.0003	-.0070	-.0071
462	-.0001	.0002	.0014	.0015
463	0.0000	0.0000	0.0000	0.0000
465	0.0000	.0001	.0007	.0007
466	0.0000	0.0000	.0001	.0001
467	-.0002	-.0003	-.0022	-.0023
468	-.0003	-.0003	-.0027	-.0028
469	-.0003	-.0001	-.0019	-.0019
470	-.0006	-.0001	-.0036	-.0037
471	-.0003	0.0000	-.0020	-.0020
472	-.0001	0.0000	-.0009	-.0009
473	.0008	-.0004	.0048	.0049
474	0.0000	0.0000	.0005	.0005
475	-.0001	.0002	-.0016	-.0016
476	.0001	-.0003	.0020	.0021
477	0.0000	-.0002	.0022	.0022

TABLE 3. CONT. (1 DEGREE)

POINT NO.	DX (FEET)	DY (FEET)	DZ (FEET)	D (FEET)
478	0.0000	-.0001	.0013	.0013
479	-.0004	-.0003	.0045	.0045
481	0.0000	0.0000	.0008	.0008
482	-.0003	.0004	.0047	.0047
483	0.0000	.0003	.0031	.0031
484	0.0000	0.0000	.0004	.0004
485	.0002	.0001	.0026	.0026
486	0.0000	0.0000	.0001	.0001
487	0.0000	0.0000	.0007	.0007
488	0.0000	0.0000	-.0006	-.0006
489	0.0000	0.0000	-.0010	-.0010
490	0.0000	0.0000	-.0011	-.0011
492	0.0000	0.0000	.0002	.0002
493	-.0002	.0002	.0036	.0036
494	0.0000	.0001	.0023	.0023
495	0.0000	-.0001	-.0012	-.0012
496	0.0000	-.0001	-.0017	-.0017
497	-.0004	-.0001	-.0056	-.0056
498	-.0001	0.0000	-.0013	-.0013
499	-.0003	.0002	-.0043	-.0043
500	-.0001	.0003	-.0038	-.0038
501	0.0000	0.0000	.0041	.0041
512	1.8046	.1031	5.5575	5.8441
514	4.8704	.3459	19.7656	20.3598
516	5.1266	.9508	36.8490	37.2160
517	5.0941	-.9326	37.0509	37.4111
518	5.5344	-.3794	27.7665	28.3152
519	4.8677	-.2513	19.7328	20.3259
520	3.5264	-.1532	12.3562	12.8505
521	1.7924	-.0644	5.5124	5.7969
550	1.8454	-2.3604	44.0701	44.1719
551	1.4417	-2.2868	44.1427	44.2254
552	-1.4125	2.2565	44.1298	44.2100
553	-1.8325	2.3429	44.0488	44.1491
602	.0008	.0006	-.0018	-.0021
603	.0045	-.0006	-.0080	-.0092
604	0.0000	0.0000	-.0001	-.0001
606	.0005	.0036	.0064	.0074
607	.0008	.0013	.0026	.0031
608	.0013	.0009	.0028	.0033
611	.0028	-.0038	.0083	.0095
613	-.0007	-.0007	.0022	.0025
614	.0008	-.0002	-.0019	-.0021
615	-.0007	.0008	.0024	.0027
616	.0003	.0013	.0029	.0032
617	0.0000	0.0000	.0001	.0001
618	-.0036	.0010	-.0082	-.0090
620	-.0002	-.0003	.0011	.0012
621	-.0010	.0006	.0030	.0033
622	.0002	.0003	.0011	.0012
623	-.0021	.0013	-.0064	-.0069
624	-.0002	-.0004	.0020	.0021

TABLE 3. CONT. (1 DEGREE)

POINT NO.	DX (FEET)	DY (FEET)	DZ (FEET)	D (FEET)
625	.0006	-.0003	-.0032	-.0033
626	0.0000	.0001	.0008	.0008
627	0.0000	0.0000	.0004	.0004
900	-.0101	-.0706	.1243	.1433
902	-.0662	-.0496	.1443	.1663
903	-.0566	.0084	.0997	.1150
904	-.0736	.0435	.1473	.1703
906	.0118	.0795	.1395	.1610
907	.0243	.0411	.0822	.0951
908	.0190	.0142	.0410	.0474
909	.0553	-.0076	.0963	.1113
910	.0539	-.0320	.1089	.1256
911	.0477	-.0637	.1378	.1591
913	-.0166	-.0160	.0507	.0588
914	-.0260	.0077	.0598	.0657
915	-.0388	.0401	.1224	.1346
916	.0031	.0107	.0243	.0268
917	.0473	.0460	.1450	.1593
918	.0321	-.0092	.0729	.0802
920	-.0199	-.0333	.0991	.1065
921	-.0402	.0243	.1203	.1292
922	.0155	.0254	.0754	.0810
923	.0094	-.0056	.0277	.0298
924	-.0060	-.0131	.0622	.0638
926	.0106	.0228	.1062	.1092
927	.0155	-.0067	.0711	.0731
928	1.6450	-2.3148	44.1673	44.2585
929	-1.6251	2.2918	44.1226	44.2120
1039	-.0043	.0006	-.0074	-.0086
1042	-.0042	.0025	-.0084	-.0098
1600	.0002	.0019	-.0034	-.0039

SECTION IX.

TABULATED RESULTS OF DYNAMIC 0.1 DEGREES/SECOND^2 CALIBRATION

TABLE 1. COORDINATES AND STANDARD DEVIATIONS OF TRIANGULATED TARGET POINTS. (.1 INCH)

POINT NO.	X (FEET)	Y (FEET)	Z (FEET)	X SIGMA (FEET)	Y SIGMA (FEET)	Z SIGMA (FEET)
1	-5.5170	41.3759	12.1080	.0015	.0017	.0018
2	0.0000	41.7851	12.1287	.0015	.0017	.0018
4	10.8608	40.1736	12.0344	.0016	.0017	.0018
8	29.4253	29.3122	11.9955	.0018	.0017	.0019
9	33.0459	25.2688	12.0207	.0018	.0017	.0019
10	36.2764	20.7901	12.1384	.0018	.0018	.0019
11	38.6074	15.9355	12.1093	.0019	.0018	.0019
12	40.1157	10.3934	11.9206	.0019	.0018	.0019
13	41.1724	5.0053	11.9373	.0019	.0018	.0019
14	41.5205	-.3631	11.9671	.0019	.0018	.0019
15	41.2148	-5.7173	12.0060	.0019	.0018	.0019
16	40.2782	-11.1880	12.1401	.0019	.0018	.0019
17	38.8940	-16.0202	12.2889	.0019	.0017	.0019
18	36.4976	-21.0482	12.3274	.0019	.0017	.0019
19	33.2936	-25.6360	12.2525	.0019	.0017	.0019
20	29.4703	-29.7708	12.1852	.0019	.0017	.0019
25	4.8372	-41.6637	12.2247	.0017	.0016	.0018
26	-.4483	-42.0232	12.2697	.0016	.0016	.0018
27	-5.7713	-41.4135	12.1528	.0016	.0016	.0018
28	-11.0356	-40.4948	12.2455	.0015	.0016	.0017
29	-16.3443	-38.4796	12.1383	.0015	.0016	.0017
30	-21.1019	-36.4467	12.3202	.0014	.0016	.0017
31	-25.8334	-32.9669	12.1779	.0014	.0016	.0017
32	-29.8283	-29.5341	12.2369	.0014	.0016	.0017
33	-33.3126	-25.4412	12.2064	.0013	.0017	.0016
34	-36.4210	-21.1545	12.3255	.0013	.0017	.0016
35	-38.9445	-16.2539	12.3681	.0013	.0017	.0016
38	-42.1507	-.1371	12.3259	.0012	.0017	.0016
39	-41.6784	5.4270	12.2586	.0012	.0017	.0016
40	-40.3126	10.9611	12.1232	.0012	.0017	.0016
41	-38.4869	16.1173	12.1016	.0012	.0017	.0016
42	-36.0966	20.9595	12.0859	.0013	.0017	.0016
43	-33.2356	25.3914	12.1292	.0013	.0017	.0016
44	-29.6922	29.7252	12.2559	.0013	.0017	.0016
45	-25.5141	33.2866	12.2285	.0013	.0017	.0017
46	-20.9499	36.2170	12.1598	.0014	.0017	.0017
47	-16.1438	38.6448	12.1830	.0014	.0017	.0017
48	-10.9572	40.3186	12.1296	.0014	.0017	.0017
49	-3.3980	40.1537	11.2802	.0015	.0017	.0018
51	7.1148	39.4132	11.1394	.0016	.0017	.0018
53	17.1871	36.0572	11.0873	.0017	.0017	.0018
55	25.9514	30.3573	11.0915	.0017	.0017	.0019
57	33.2252	22.5838	11.2077	.0018	.0018	.0019
59	37.7899	13.2648	11.1276	.0019	.0018	.0019
61	40.0694	3.0582	11.2097	.0019	.0018	.0019
63	39.4006	-7.4097	11.1513	.0019	.0018	.0019
65	36.3343	-17.5011	11.2879	.0019	.0017	.0019
73	2.8795	-40.1899	11.2778	.0017	.0016	.0018
75	-7.2944	-39.9043	11.4353	.0016	.0016	.0018
77	-17.2577	-36.4117	11.2751	.0015	.0016	.0017

TABLE 1. CONT. (.1 DEGREE)

POINT NO.	X (FEET)	Y (FEET)	Z (FEET)	X SIGMA (FEET)	Y SIGMA (FEET)	Z SIGMA (FEET)
79	-26.5521	-30.7998	11.4792	.0014	.0016	.0017
81	-33.5676	-22.8383	11.4520	.0013	.0017	.0016
83	-38.2873	-13.4610	11.4351	.0013	.0017	.0016
87	-39.8779	7.6244	11.4391	.0012	.0017	.0016
89	-36.4631	17.1170	11.2657	.0013	.0017	.0016
91	-30.7893	25.8385	11.2099	.0013	.0017	.0016
93	-22.9193	33.1524	11.2879	.0013	.0017	.0017
95	-13.6583	37.8064	11.2221	.0014	.0017	.0017
97	-4.9107	37.1951	9.7836	.0015	.0017	.0018
99	4.9128	37.1189	9.7367	.0016	.0017	.0018
103	22.7478	29.7357	9.7433	.0017	.0017	.0019
105	29.7917	22.6845	9.7367	.0018	.0018	.0019
107	34.8181	14.2994	9.8414	.0018	.0018	.0019
109	37.2405	4.6490	9.7794	.0019	.0018	.0019
113	34.5662	-14.5423	9.7618	.0019	.0018	.0019
119	14.2388	-34.7739	9.8078	.0018	.0017	.0018
123	-5.2943	-37.2070	9.8137	.0016	.0016	.0018
125	-14.6648	-34.5787	9.7969	.0015	.0016	.0017
127	-23.0293	-29.7016	9.8057	.0014	.0017	.0017
129	-29.9795	-22.8039	9.8598	.0014	.0017	.0017
131	-34.8662	-14.2303	9.8529	.0013	.0017	.0016
133	-37.3557	-4.8986	9.8524	.0013	.0017	.0016
135	-37.3267	5.1132	9.8541	.0013	.0017	.0016
137	-34.7756	14.3975	9.8359	.0013	.0017	.0016
139	-29.8879	22.8263	9.8099	.0013	.0017	.0017
141	-22.9607	29.7573	9.8179	.0014	.0017	.0017
143	-14.4485	34.6607	9.7934	.0014	.0017	.0017
145	-2.8929	35.8995	9.0108	.0015	.0017	.0018
146	1.6925	36.0895	9.0670	.0015	.0017	.0018
147	6.5014	35.6394	9.1113	.0016	.0017	.0018
149	15.5648	32.5411	9.0399	.0017	.0017	.0018
150	19.5775	30.1938	9.0010	.0017	.0017	.0019
151	23.1236	27.1214	8.8253	.0017	.0017	.0019
155	34.0710	11.8466	9.0244	.0018	.0018	.0019
156	35.2936	7.3974	9.0199	.0019	.0018	.0019
157	35.8351	2.5399	8.9568	.0019	.0018	.0019
159	35.4106	-6.9415	9.0374	.0019	.0018	.0019
160	34.0308	-11.4917	8.9567	.0019	.0018	.0019
161	32.6588	-15.7399	9.1203	.0019	.0018	.0019
163	27.3329	-23.6650	9.0727	.0018	.0017	.0019
164	24.0572	-26.9703	9.0685	.0018	.0017	.0019
166	16.3154	-32.2747	9.0814	.0018	.0017	.0019
169	2.6790	-36.2881	9.1981	.0017	.0017	.0018
170	-1.9934	-36.1766	9.1143	.0016	.0016	.0018
171	-6.7725	-35.7039	9.1740	.0016	.0016	.0018
172	-11.3771	-34.4532	9.1436	.0015	.0016	.0018
173	-15.9155	-32.7775	9.2194	.0015	.0016	.0017
174	-20.0205	-30.4071	9.2012	.0015	.0017	.0017
175	-23.5537	-27.5916	9.1367	.0014	.0017	.0017
176	-27.0269	-24.3281	9.1847	.0014	.0017	.0017
177	-29.9547	-20.6098	9.1824	.0014	.0017	.0017

TABLE 1. CONT. (.1 DEGREE)

POINT NO.	X (FEET)	Y (FEET)	Z (FEET)	X SIGMA (FEET)	Y SIGMA (FEET)	Z SIGMA (FEET)
178	-32.3222	-16.4094	9.1251	.0013	.0017	.0017
179	-34.1336	-12.1737	9.1160	.0013	.0017	.0016
180	-35.5155	-7.7170	9.1688	.0013	.0017	.0016
181	-36.0323	-2.6421	9.0541	.0013	.0017	.0016
182	-35.9980	2.0247	9.0151	.0013	.0017	.0016
183	-35.3299	6.6659	8.9725	.0013	.0017	.0016
184	-34.3138	11.1121	9.0253	.0013	.0017	.0016
185	-32.3400	15.7068	8.9682	.0013	.0017	.0016
186	-30.2703	19.6938	9.0420	.0013	.0017	.0017
187	-27.5841	23.4723	9.1039	.0013	.0017	.0017
188	-24.1007	26.7822	9.0138	.0013	.0017	.0017
189	-20.3494	29.8287	9.0548	.0014	.0017	.0017
190	-16.4759	32.2656	9.1192	.0014	.0017	.0017
191	-12.2147	34.0319	9.0777	.0014	.0017	.0017
192	-7.5310	35.3305	9.0643	.0015	.0017	.0018
193	-4.3076	32.6860	7.5615	.0015	.0017	.0018
194	-.0255	33.2327	7.6745	.0015	.0017	.0018
195	4.2286	32.8818	7.6380	.0016	.0017	.0018
198	16.6209	28.5720	7.5924	.0017	.0017	.0019
199	20.2290	26.1508	7.6000	.0017	.0017	.0019
200	23.4837	23.2507	7.5877	.0017	.0018	.0019
201	26.3028	19.9326	7.5639	.0018	.0018	.0019
202	28.7173	16.6051	7.6439	.0018	.0018	.0019
204	31.9553	8.4360	7.5693	.0018	.0018	.0019
205	32.8080	4.1347	7.5872	.0018	.0018	.0019
207	32.9089	-4.4169	7.6557	.0019	.0018	.0019
209	30.4274	-12.9483	7.5905	.0019	.0018	.0019
210	28.4859	-16.8313	7.6036	.0018	.0017	.0019
212	23.3697	-23.5857	7.6588	.0018	.0017	.0019
213	20.0079	-26.4693	7.6546	.0018	.0017	.0019
214	16.4184	-28.8608	7.6639	.0018	.0017	.0019
215	12.3031	-30.7852	7.6337	.0017	.0017	.0019
216	8.3416	-32.1573	7.6703	.0017	.0017	.0018
217	4.0809	-32.9308	7.6498	.0017	.0017	.0018
218	-.2327	-33.2041	7.6608	.0016	.0017	.0018
219	-4.4890	-32.9279	7.6675	.0016	.0017	.0018
220	-9.0278	-32.0661	7.7118	.0016	.0017	.0018
221	-12.9209	-30.7101	7.7080	.0015	.0017	.0018
222	-16.7888	-28.6500	7.6604	.0015	.0017	.0018
223	-20.3840	-26.3800	7.7120	.0014	.0017	.0017
224	-23.3486	-23.3299	7.5713	.0014	.0017	.0017
225	-26.5096	-20.1656	7.7029	.0014	.0017	.0017
226	-28.8631	-16.3962	7.6535	.0014	.0017	.0017
227	-30.8295	-12.4959	7.6812	.0013	.0017	.0017
228	-32.1633	-8.4682	7.6789	.0013	.0017	.0017
229	-32.8683	-4.2367	7.6157	.0013	.0017	.0017
230	-33.2205	.0538	7.6532	.0013	.0017	.0017
231	-33.1329	4.2202	7.7442	.0013	.0017	.0017
232	-32.0484	8.8033	7.6605	.0013	.0017	.0017
233	-30.7086	12.7465	7.6766	.0013	.0017	.0017
234	-28.9073	16.5894	7.7083	.0013	.0017	.0017
235	-26.2877	20.1527	7.6152	.0013	.0017	.0017

TABLE 1. CONT. (.1 DEGREE)

POINT NO.	X (FEET)	Y (FEET)	Z (FEET)	X SIGMA (FEET)	Y SIGMA (FEET)	Z SIGMA (FEET)
236	-23.6237	23.4280	7.6925	.0014	.0017	.0017
237	-20.0873	26.2107	7.5732	.0014	.0017	.0017
238	-16.5992	28.7352	7.6501	.0014	.0017	.0017
239	-12.5550	30.5609	7.5856	.0014	.0017	.0018
240	-8.6423	31.9909	7.6297	.0015	.0017	.0018
290	.0194	28.6438	5.6966	.0015	.0017	.0018
294	14.4228	24.6973	5.6802	.0017	.0017	.0019
296	20.4205	19.9735	5.6604	.0017	.0018	.0019
306	24.5372	-14.1809	5.5742	.0018	.0018	.0019
310	13.7511	-25.0401	5.6708	.0017	.0017	.0019
312	6.9778	-27.8961	5.7454	.0017	.0017	.0018
316	-7.8179	-27.6833	5.7553	.0016	.0017	.0018
318	-14.7044	-24.7406	5.7540	.0015	.0017	.0018
320	-20.5808	-20.0885	5.7460	.0014	.0017	.0017
322	-24.9669	-14.0405	5.6971	.0014	.0017	.0017
324	-27.9038	-7.2277	5.7703	.0014	.0017	.0017
326	-28.7359	.3467	5.7210	.0014	.0017	.0017
328	-27.7617	7.7096	5.7591	.0014	.0017	.0017
330	-24.8090	14.4948	5.7236	.0014	.0017	.0017
332	-20.1802	20.2990	5.6908	.0014	.0017	.0017
334	-14.2643	24.8880	5.7157	.0014	.0017	.0018
336	-7.2704	27.7167	5.7052	.0015	.0017	.0018
386	3.2619	23.7124	3.9859	.0016	.0017	.0018
388	14.6486	18.5390	3.8771	.0017	.0018	.0019
389	18.9750	14.1355	3.8863	.0017	.0018	.0019
390	22.1897	8.6618	3.9335	.0018	.0018	.0019
391	23.4580	2.5503	3.8596	.0018	.0018	.0019
392	23.4314	-3.5950	3.9015	.0018	.0018	.0019
393	21.9066	-9.6535	3.9845	.0018	.0018	.0019
395	14.4274	-19.3448	4.0479	.0017	.0017	.0019
396	8.8939	-22.4195	4.0418	.0017	.0017	.0019
397	2.4391	-23.8426	3.9948	.0016	.0017	.0018
398	-3.6838	-23.6579	3.9871	.0016	.0017	.0018
400	-14.9527	-18.8965	4.0334	.0015	.0017	.0018
401	-19.3680	-14.5028	4.0669	.0015	.0017	.0018
402	-22.3655	-9.1077	4.0524	.0014	.0017	.0017
403	-23.8084	-2.9218	4.0016	.0014	.0017	.0017
404	-23.7030	3.2935	3.9815	.0014	.0017	.0017
405	-22.1079	9.3548	4.0074	.0014	.0017	.0017
406	-19.0795	14.7480	4.0443	.0014	.0017	.0017
407	-14.3130	19.2699	4.0071	.0015	.0017	.0018
408	-9.1304	22.1991	4.0054	.0015	.0017	.0018
409	5.2462	20.4672	3.1009	.0016	.0017	.0019
410	10.2625	18.2339	3.0391	.0017	.0018	.0019
411	14.7710	14.8021	3.0341	.0017	.0018	.0019
412	18.3006	10.4448	3.0781	.0017	.0018	.0019
413	20.1569	5.3826	3.0202	.0018	.0018	.0019
414	20.2626	-5.8029	3.0826	.0018	.0018	.0019
415	18.3463	-10.9085	3.1578	.0018	.0018	.0019
417	10.6433	-18.5360	3.1696	.0017	.0017	.0019
418	5.4981	-20.5054	3.1327	.0017	.0017	.0019

TABLE 1. CONT. (.1 DEGREE)

POINT NO.	X (FEET)	Y (FEET)	Z (FEET)	X SIGMA (FEET)	Y SIGMA (FEET)	Z SIGMA (FEET)
420	-10.6134	-18.7270	3.2172	.0015	.0017	.0018
424	-20.8235	5.4748	3.2178	.0014	.0017	.0017
425	-18.4487	10.4729	3.1266	.0014	.0017	.0018
426	-15.2302	14.8816	3.1510	.0015	.0017	.0018
427	-10.6834	18.2133	3.0945	.0015	.0017	.0018
431	6.8725	15.5303	2.0043	.0016	.0018	.0019
432	10.8434	12.9984	1.9916	.0017	.0018	.0019
433	13.9545	9.9266	2.0362	.0017	.0018	.0019
434	16.0012	6.0932	2.0315	.0017	.0018	.0019
436	16.7576	-2.9339	2.0047	.0017	.0018	.0019
437	16.0130	-6.9583	2.1132	.0017	.0018	.0019
439	9.9427	-14.1167	2.0708	.0017	.0017	.0019
440	5.9998	-16.2426	2.0806	.0017	.0017	.0019
441	1.7029	-17.2665	2.0903	.0016	.0017	.0019
442	-2.9336	-17.0545	2.0789	.0016	.0017	.0018
443	-7.0397	-15.8640	2.0909	.0016	.0017	.0018
444	-10.9850	-13.3151	2.0692	.0015	.0017	.0018
445	-14.0856	-9.9693	2.0665	.0015	.0017	.0018
447	-17.2962	-1.7037	2.0953	.0015	.0017	.0018
448	-17.0007	2.7128	2.0558	.0015	.0017	.0018
449	-16.0308	6.6813	2.0941	.0015	.0017	.0018
450	-13.3008	10.8893	2.0567	.0015	.0017	.0018
451	-10.0101	13.8994	2.0366	.0015	.0017	.0018
452	-6.2868	16.0362	2.0627	.0015	.0017	.0018
453	-.2776	13.9792	1.3629	.0016	.0018	.0018
454	3.2891	13.0437	1.2607	.0016	.0018	.0019
455	6.4947	11.7246	1.2493	.0016	.0018	.0019
456	9.4903	9.5795	1.2631	.0017	.0018	.0019
459	13.4574	-.0075	1.2564	.0017	.0018	.0019
460	13.1946	-3.6525	1.2979	.0017	.0018	.0019
462	9.6103	-9.7544	1.3020	.0017	.0018	.0019
463	6.7883	-11.8413	1.2951	.0017	.0017	.0019
465	-.0766	-13.7264	1.3096	.0016	.0017	.0019
466	-3.6240	-13.3910	1.3367	.0016	.0017	.0018
467	-6.8560	-12.0796	1.3402	.0016	.0017	.0018
468	-9.5418	-9.6559	1.2774	.0015	.0017	.0018
469	-11.9542	-6.9783	1.3295	.0015	.0017	.0018
470	-13.1095	-3.7512	1.2870	.0015	.0017	.0018
471	-13.7899	-.2126	1.3201	.0015	.0017	.0018
472	-13.2385	3.3687	1.2955	.0015	.0017	.0018
473	-11.8696	6.7113	1.2960	.0015	.0017	.0018
474	-9.6655	9.2718	1.2490	.0015	.0017	.0018
475	-7.1413	11.8227	1.3221	.0015	.0017	.0018
476	-3.7744	13.1738	1.3074	.0016	.0017	.0018
477	-.7012	9.0475	.5722	.0016	.0018	.0019
478	3.8497	7.9339	.5416	.0016	.0018	.0019
479	7.2644	4.9436	.5371	.0017	.0018	.0019
481	8.0105	-4.0252	.5574	.0017	.0018	.0019
482	4.9189	-7.5520	.5690	.0017	.0018	.0019
483	.5035	-9.0158	.5692	.0016	.0017	.0019
484	-4.0200	-8.0945	.5688	.0016	.0017	.0018
485	-7.4683	-5.2619	.5816	.0015	.0017	.0018

TABLE 1. CONT. (.1 DEGREE)

POINT NO.	X (FEET)	Y (FEET)	Z (FEET)	X SIGMA (FEET)	Y SIGMA (FEET)	Z SIGMA (FEET)
486	-9.2027	-.7514	.5920	.0015	.0017	.0018
487	-8.3122	3.6482	.5714	.0015	.0017	.0018
488	-4.8664	7.4489	.5464	.0016	.0018	.0018
489	.7762	6.2403	.2717	.0016	.0018	.0019
490	3.5971	4.8340	.2490	.0016	.0018	.0019
492	6.2340	-.9030	.2740	.0017	.0018	.0019
493	5.1300	-4.0447	.2977	.0017	.0018	.0019
494	2.1545	-5.8951	.2759	.0016	.0018	.0019
495	-1.2555	-6.4564	.3011	.0016	.0017	.0019
496	-3.9772	-5.1475	.2911	.0016	.0017	.0018
497	-6.0344	-2.5525	.2938	.0016	.0017	.0018
498	-6.5508	.6408	.3005	.0015	.0017	.0018
499	-5.0833	3.6096	.2669	.0016	.0018	.0018
500	-2.5190	5.8070	.2734	.0016	.0018	.0018
501	-.1173	-.0855	.0053	.0016	.0016	.0019
512	-23.3868	-1.4444	9.9580	.0014	.0017	.0017
514	-17.7474	-1.3430	23.1723	.0014	.0017	.0015
516	-10.0221	-1.9058	38.3127	.0014	.0017	.0014
517	-9.9189	1.7645	38.4835	.0014	.0017	.0014
518	-14.3668	.9168	30.3171	.0014	.0017	.0015
519	-17.7745	.8338	23.1386	.0014	.0017	.0015
520	-20.5622	.7990	16.3049	.0014	.0017	.0016
521	-23.4242	.7360	9.9097	.0014	.0017	.0017
550	-3.0401	3.8391	44.4454	.0014	.0017	.0014
551	-2.3771	3.7132	44.4495	.0014	.0017	.0014
552	2.3110	-3.6801	44.4283	.0014	.0017	.0014
553	2.9997	-3.8285	44.4224	.0014	.0017	.0014
602	32.9905	24.5648	11.7494	.0018	.0017	.0019
603	40.7243	-6.1099	11.7611	.0019	.0018	.0019
604	35.7753	-21.2734	12.0299	.0019	.0017	.0019
606	-6.1861	-40.8749	11.8780	.0016	.0016	.0018
607	-21.3471	-35.8886	12.1087	.0014	.0016	.0017
608	-33.1442	-24.7863	11.9012	.0013	.0017	.0016
610	-35.4877	21.1867	11.8512	.0013	.0017	.0016
611	-24.7375	33.1693	11.8992	.0013	.0017	.0017
613	23.6484	22.4717	7.3922	.0017	.0018	.0019
614	31.2751	-9.2538	7.3860	.0019	.0018	.0019
615	22.6972	-23.5417	7.4255	.0018	.0017	.0019
616	-9.3733	-31.5212	7.5143	.0015	.0017	.0018
617	-23.5115	-22.7059	7.4229	.0014	.0017	.0017
618	-31.6088	9.1263	7.5079	.0013	.0017	.0017
619	-22.9689	23.4068	7.4675	.0014	.0017	.0017
620	14.4943	23.9774	5.4518	.0017	.0017	.0019
621	23.9162	-14.5781	5.4448	.0018	.0018	.0019
622	-14.9114	-24.1177	5.5853	.0015	.0017	.0018
623	-24.1920	14.6148	5.5408	.0014	.0017	.0017
624	7.0973	14.8635	1.8854	.0016	.0018	.0019
625	15.2131	-7.2149	1.9659	.0017	.0018	.0019
626	-7.2555	-15.2206	1.9747	.0016	.0017	.0018
627	-15.4308	6.9942	1.9949	.0015	.0017	.0018
900	5.7208	40.9472	12.0392	.0016	.0017	.0018

TABLE 1. CONT. (.1 DEGREE)

POINT NO.	X (FEET)	Y (FEET)	Z (FEET)	X SIGMA (FEET)	Y SIGMA (FEET)	Z SIGMA (FEET)
902	32.9602	24.8754	12.0299	.0018	.0017	.0019
903	40.8985	-5.9333	11.9890	.0019	.0018	.0019
904	36.1004	-21.1526	12.3497	.0019	.0017	.0019
906	-5.9712	-41.0935	12.1615	.0016	.0016	.0018
907	-21.2140	-36.1313	12.3007	.0014	.0016	.0017
908	-33.2702	-25.1072	12.1189	.0013	.0017	.0016
909	-41.4227	5.5753	12.2578	.0012	.0017	.0016
910	-35.7388	21.0334	12.0842	.0013	.0017	.0016
911	-25.0690	33.1806	12.1909	.0013	.0017	.0017
913	23.5462	22.8134	7.5258	.0017	.0018	.0019
914	31.4489	-9.1699	7.5216	.0019	.0018	.0019
915	22.9679	-23.5562	7.6607	.0018	.0017	.0019
916	-9.1728	-31.8000	7.6355	.0016	.0017	.0018
917	-23.4272	-22.9704	7.6520	.0014	.0017	.0017
918	-31.8316	8.9730	7.6838	.0013	.0017	.0017
919	-23.3164	23.4378	7.6410	.0014	.0017	.0017
920	14.4221	24.3007	5.6607	.0017	.0017	.0019
921	24.1834	-14.4835	5.6522	.0018	.0018	.0019
922	-14.7808	-24.4058	5.7435	.0015	.0017	.0018
923	-24.5004	14.5619	5.6715	.0014	.0017	.0017
924	6.9769	15.1968	2.0078	.0016	.0018	.0019
926	-7.1210	-15.5274	2.1387	.0016	.0017	.0018
927	-15.7599	6.7886	2.1207	.0015	.0017	.0018
928	-2.7073	3.7568	44.5045	.0014	.0017	.0014
929	2.6579	-3.7361	44.4548	.0014	.0017	.0014
1003	6.0958	41.1459	12.0205	.0016	.0017	.0018
1039	-41.6302	5.9249	12.2709	.0012	.0017	.0016

TABLE 2. PLATE COORDINATE RESIDUALS FROM TARGET POINTS. (.1 DEGREE)

POINT NO.	CAMERA NO. 1 VX (MICRONS)	CAMERA NO. 1 VY (MICRONS)	CAMERA NO. 2 VX (MICRONS)	CAMERA NO. 2 VY (MICRONS)
1	-.1	.3	.0	-.4
2	.2	-1.4	.1	1.8
4	-.4	1.6	-.0	-2.1
8	.6	-2.2	.3	2.7
9	-1.0	3.3	-.5	-3.9
10	-1.0	3.2	-.5	-3.6
11	-.8	2.8	-.4	-3.2
12	.0	-.1	.0	.1
13	-.8	2.6	-.4	-2.8
14	.0	-.1	.0	.2
15	-.7	2.1	-.3	-2.1
16	-.6	1.9	-.3	-1.9
17	1.5	-4.6	.6	4.4
18	.0	-.3	.0	.2
19	-.3	1.2	-.1	-1.1
20	-.8	2.8	-.3	-2.4
25	-.9	3.8	-.1	-3.0
26	-.5	2.3	-.0	-1.7
27	.1	-1.0	.1	.8
28	.9	-5.3	.1	4.0
29	.1	-.9	.0	.7
30	.1	-.6	.0	.4
31	.2	-1.5	-.0	1.1
32	.0	-.8	-.0	.6
33	.5	-6.0	-.3	4.8
34	.2	-3.8	-.2	3.1
35	.4	-6.6	-.5	5.6
38	.3	-8.4	-.8	7.8
39	.0	-2.7	-.2	2.6
40	.1	-4.5	-.4	4.4
41	-.0	.4	.0	-.5
42	.2	-3.8	-.4	4.1
43	.2	-2.7	-.2	3.0
44	-.0	.5	.0	-.6
45	-.0	.9	.0	-1.1
46	.1	-1.8	-.1	2.2
47	.1	-1.4	-.0	1.8
48	.0	-.7	.0	.8
49	-.0	-.1	.0	.1
51	-.6	2.9	-.1	-3.7
53	-.8	3.1	-.3	-3.9
55	.2	-1.0	.1	1.1
57	.3	-1.2	.2	1.4
59	-.2	.7	-.1	-.8
61	-.2	.7	-.0	-.8
63	-1.3	4.0	-.6	-4.0
65	-.0	.3	-.0	-.2
73	-.9	4.0	-.1	-3.1
75	.0	-.3	.0	.2

TABLE 2. CONT. (.1 DEGREE)

POINT NO.	CAMERA NO. 1 VX (MICRONS)	CAMERA NO. 1 VY (MICRONS)	CAMERA NO. 2 VX (MICRONS)	CAMERA NO. 2 VY (MICRONS)
77	-.0	-.0	.0	.0
79	.0	-.1	.0	.1
81	-.1	2.0	.1	-1.6
83	.3	-5.3	-.4	4.6
87	.1	-2.6	-.2	2.5
89	-.1	1.7	.1	-1.7
91	.2	-2.3	-.2	2.6
93	-.4	4.3	.2	-5.1
95	-.4	2.9	.0	-3.6
97	-.6	3.6	-.0	-4.4
99	-.5	2.7	-.1	-3.3
103	.7	-2.6	.3	3.2
105	-.7	2.6	-.3	-3.0
107	.7	-2.3	.3	2.6
109	-.3	1.1	-.1	-1.2
113	-.8	2.5	-.3	-2.3
119	1.1	-4.6	.3	3.8
123	.6	-3.6	.1	2.9
125	-.0	.0	.0	-.0
127	-.1	1.1	.0	-.9
129	.0	-.7	-.0	.6
131	-.1	1.3	.0	-1.1
133	.2	-4.9	-.3	4.4
135	.1	-2.7	-.2	2.6
137	.1	-2.4	-.2	2.5
139	.2	-3.0	-.2	3.3
141	-.2	2.7	.1	-3.1
143	-.4	3.1	.0	-3.7
145	-.5	2.7	-.0	-3.3
146	-.2	1.0	-.0	-1.3
147	-.7	3.2	-.1	-3.9
149	.3	-1.6	.1	1.9
150	.0	-.2	.0	.3
151	.5	-2.3	.2	2.7
155	-.0	.0	.0	-.0
156	-.6	1.9	-.2	-2.1
157	.4	-1.5	.2	1.6
159	.6	-2.1	.2	2.1
160	-.5	1.7	-.2	-1.7
161	-.5	1.7	-.2	-1.6
163	-1.4	4.9	-.5	-4.4
164	-.0	.1	-.0	-.1
166	.3	-1.3	.1	1.1
169	-.1	.7	-.0	-.5
170	-.4	1.9	-.0	-1.5
171	.2	-1.3	.0	1.0
172	.5	-2.6	.0	2.1
173	-.2	1.5	.0	-1.2
174	-.1	1.3	.0	-1.0
175	-.1	.5	.0	-.4

TABLE 2. CONT. (.1 DEGREE)

POINT NO.	CAMERA NO. 1 VX (MICRONS)	CAMERA NO. 1 VY (MICRONS)	CAMERA NO. 2 VX (MICRONS)	CAMERA NO. 2 VY (MICRONS)
176	.5	-5.3	-.1	4.3
177	.4	-4.7	-.2	3.9
178	.1	-1.7	-.1	1.5
179	.0	-1.0	-.0	.9
180	.1	-1.7	-.1	1.5
181	-.1	2.7	.2	-2.5
182	.0	.0	.0	-.0
183	.1	-1.7	-.1	1.7
184	.3	-5.2	-.4	5.3
185	.0	-.8	-.0	.8
186	.2	-3.3	-.2	3.5
187	-.2	2.8	.2	-3.1
188	-.1	1.3	.0	-1.5
189	.2	-1.7	-.0	1.9
190	-.1	1.2	.0	-1.4
191	-.2	1.6	.0	-1.9
192	.2	-1.5	.0	1.8
193	-.0	.2	.0	-.2
194	-.3	1.8	-.0	-2.2
195	-.0	.2	.0	-.2
198	.1	-.5	.0	.6
199	.8	-3.3	.3	3.9
200	.3	-1.1	.1	1.3
201	-.5	2.0	-.2	-2.3
202	-.1	.6	-.0	-.6
204	.4	-1.3	.1	1.4
205	.3	-.9	.1	1.0
207	-.6	2.3	-.2	-2.3
209	.2	-.7	.0	.6
210	-.2	.9	-.1	-.8
212	-.1	.4	-.0	-.3
213	1.5	-5.7	.5	5.0
214	.0	-.2	.0	.2
215	.4	-2.0	.1	1.7
216	-.7	3.2	-.1	-2.6
217	-.8	3.8	-.1	-3.1
218	.5	-2.7	.1	2.2
219	.1	-.8	.0	.6
220	.9	-5.1	.0	4.1
221	-.0	.5	.0	-.4
222	.0	-.5	-.0	.4
223	-.4	3.4	.0	-2.7
224	.3	-3.3	-.1	2.7
225	.1	-1.7	-.0	1.4
226	.1	-1.6	-.0	1.4
227	.4	-4.8	-.2	4.2
228	.0	-.9	-.0	.8
229	-.7	10.0	.7	-9.2
230	.1	-2.5	-.1	2.4
231	-.0	1.0	.0	-1.0
232	.1	-2.1	-.1	2.0

TABLE 2. CONT. (.1 DEGREE)

POINT NO.	CAMERA NO. 1 VX (MICRONS)	CAMERA NO. 1 VY (MICRONS)	CAMERA NO. 2 VX (MICRONS)	CAMERA NO. 2 VY (MICRONS)
233	.1	-1.7	-.1	1.7
234	.0	-.2	-.0	.2
235	-.0	.5	.0	-.5
236	.8	-7.9	-.4	8.8
237	-.1	1.2	.0	-1.4
238	-.3	2.9	.1	-3.3
239	-.1	.6	.0	-.7
240	-.1	.9	.0	-1.1
290	.1	-.8	.0	1.0
294	-.0	.1	-.0	-.1
296	-.0	.1	.0	-.2
306	.4	-1.5	.1	1.4
310	.3	-1.7	.1	1.4
312	.0	-.1	.0	.1
316	.1	-.5	.0	.4
318	-.3	2.4	.0	-2.0
320	.6	-4.7	-.1	4.1
322	-.5	5.3	.2	-4.6
324	-.2	2.5	.1	-2.3
326	-.1	2.2	.1	-2.1
328	.0	-.6	-.0	.5
330	-.1	1.4	.1	-1.4
332	-.1	.9	.0	-1.0
334	-.1	1.1	.0	-1.3
336	-.4	2.9	.0	-3.3
386	-.8	4.3	-.1	-5.0
388	-.6	2.9	-.2	-3.2
389	.3	-1.4	.1	1.5
390	.1	-.6	.0	.6
391	-.0	.1	-.0	-.2
392	.3	-1.2	.1	1.2
393	1.2	-4.9	.4	4.7
395	-.0	-.0	-.0	.0
396	.0	-.2	.0	.2
397	.7	-3.6	.1	3.1
398	.2	-1.3	.0	1.0
400	.5	-3.6	-.0	3.1
401	-.3	2.5	.0	-2.2
402	-.2	1.8	.0	-1.6
403	-.1	1.2	.0	-1.2
404	.1	-1.5	-.0	1.5
405	-.4	4.3	.2	-4.4
406	-.2	1.8	.0	-1.9
407	-.2	2.1	.0	-2.3
408	.0	-.1	.0	.1
409	.7	-3.9	.1	4.4
410	-.1	.8	-.0	-.9
411	.3	-1.6	.1	1.7
412	.3	-1.3	.1	1.4
413	.6	-2.8	.2	3.0

TABLE 2. CONT. (.1 DEGREE)

POINT NO.	CAMERA NO. 1 VX (MICRONS)	CAMERA NO. 1 VY (MICRONS)	CAMERA NO. 2 VX (MICRONS)	CAMERA NO. 2 VY (MICRONS)
414	.3	-1.2	.1	1.1
415	.5	-2.0	.1	2.0
417	-.0	.2	-.0	-.1
418	.1	-.8	.0	.7
420	.5	-3.4	.0	2.9
424	.1	-1.5	-.0	1.5
425	-.4	4.1	.1	-4.2
426	-.2	1.8	.0	-1.9
427	-.0	.6	.0	-.6
431	-.0	.2	.0	-.2
432	.1	-.8	.0	.9
433	.4	-1.9	.1	2.0
434	.2	-1.3	.0	1.4
436	-.3	1.5	-.1	-1.5
437	.2	-1.0	.1	1.0
439	.2	-1.2	.0	1.1
440	.2	-1.4	.0	1.3
441	.6	-3.1	.1	2.8
442	.1	-.7	.0	.6
443	.8	-4.9	.0	4.3
444	.4	-2.8	-.0	2.5
445	.3	-2.0	-.0	1.8
447	.0	-.0	-.0	.0
448	-.0	.2	-.0	-.2
449	-.1	1.0	.0	-1.1
450	-.4	3.5	.0	-3.7
451	.1	-1.2	-.0	1.2
452	-.1	.8	.0	-.8
453	2.3	-13.6	.2	14.5
454	-.1	.6	-.0	-.7
455	-.3	1.4	-.0	-1.5
456	.4	-2.0	.1	2.1
459	-.3	1.3	-.0	-1.3
460	.5	-2.4	.1	2.4
462	.5	-2.7	.1	2.5
463	.2	-1.3	.0	1.2
465	-.1	.5	-.0	-.5
466	.5	-3.3	.0	3.0
467	.3	-2.1	.0	1.9
468	.1	-.7	.0	.6
469	.1	-1.2	-.0	1.1
470	-.2	2.2	.0	-2.1
471	.2	-2.1	-.0	2.1
472	-.1	1.1	.0	-1.2
473	-.2	2.2	.0	-2.2
474	-.1	.8	.0	-.8
475	.1	-.8	-.0	.8
476	-.1	.9	-.0	-1.0
477	-.2	1.3	-.0	-1.3
478	.4	-2.3	.0	2.4

TABLE 2. CONT. (.1 DEGREE)

POINT NO.	CAMERA NO. 1 VX (MICRONS)	CAMERA NO. 1 VY (MICRONS)	CAMERA NO. 2 VX (MICRONS)	CAMERA NO. 2 VY (MICRONS)
479	.2	-.8	.0	.8
481	.3	-1.6	.0	1.6
482	.4	-2.0	.1	1.9
483	.0	-.1	.0	.1
484	-.2	1.4	.0	-1.4
485	.0	-.5	-.0	.5
486	.4	-2.8	-.0	2.7
487	-.1	1.2	.0	-1.2
488	-.7	4.4	.0	-4.4
489	-.0	.3	-.0	-.3
490	-.5	2.7	-.1	-2.8
492	.8	-4.4	.1	4.4
493	-.1	.5	-.0	-.4
494	.4	-2.1	.0	2.0
495	-.2	1.0	-.0	-1.0
496	.4	-2.4	.0	2.3
497	.0	-.4	.0	.4
498	-.4	2.9	.0	-2.9
499	-.3	2.4	-.0	-2.4
500	-.3	2.2	-.0	-2.2
501	.4	-2.4	.0	2.4
512	-.2	2.0	.0	-1.9
514	-.2	1.5	-.0	-1.4
516	-2.2	8.9	-.6	-8.7
517	-2.2	8.8	-.7	-8.8
518	-.9	4.5	-.1	-4.4
519	-.7	4.1	-.0	-4.0
520	.2	-1.9	-.0	1.9
521	-.2	2.1	.0	-2.0
550	-2.1	4.2	-.1	-7.6
551	-1.7	5.9	-.0	-6.3
552	-3.2	9.5	-1.8	-10.3
553	-2.9	5.3	-.7	-8.1
602	-.1	.4	-.0	-.4
603	-.2	.8	-.1	-.8
604	-.7	2.1	-.3	-1.9
606	.0	-.7	.1	.5
607	-.6	4.2	.0	-3.3
608	.1	-1.6	-.1	1.3
610	-.3	4.8	.5	-5.2
611	.2	-2.5	-.1	3.0
613	.0	-.2	.0	.2
614	1.1	-3.8	.4	3.7
615	.7	-2.8	.2	2.5
616	-.3	1.8	-.0	-1.5
617	.1	-1.2	-.0	1.0
618	.1	-1.9	-.1	1.9
619	-.0	.5	.0	-.6
620	.5	-2.4	.1	2.8
621	.5	-2.0	.1	1.8

TABLE 2. CONT. (.1 DEGREE)

POINT NO.	CAMERA NO. 1 VX (MICRONS)	CAMERA NO. 1 VY (MICRONS)	CAMERA NO. 2 VX (MICRONS)	CAMERA NO. 2 VY (MICRONS)
622	-.5	3.7	.0	-3.1
623	-.1	1.9	.1	-2.0
624	.1	-.8	.0	.9
625	-.1	.4	-.0	-.4
626	.0	-.5	-.0	.4
627	-.0	.5	.0	-.5
900	-.5	2.1	-.0	-2.7
902	-1.8	5.9	-.9	-7.0
903	.4	-1.4	.2	1.4
904	-.7	2.1	-.3	-2.0
906	.6	-3.4	.1	2.6
907	-.1	.8	.0	-.6
908	.7	-8.2	-.4	6.6
909	.2	-7.1	-.6	6.8
910	.2	-3.7	-.3	4.0
911	-.3	3.0	.1	-3.5
913	.1	-.5	.0	.6
914	.8	-2.7	.3	2.6
915	.0	-.2	.0	.2
916	-.1	.8	.0	-.7
917	-1.0	9.0	.2	-7.5
918	-.0	.2	.0	-.2
919	.0	-.4	-.0	.4
920	.6	-3.0	.2	3.5
921	-.0	.0	.0	-.0
922	-.1	1.3	.0	-1.1
923	-.3	4.0	.2	-4.2
924	.0	-.2	.0	.2
926	.2	-1.4	.0	1.2
927	.2	-1.7	-.0	1.7
928	-2.3	3.6	-.2	-8.1
929	-4.5	5.5	-1.0	-10.3
1003	-.7	2.9	-.1	-3.7
1039	.1	-3.4	-.3	3.2

TABLE 3. X,Y,Z, COMPONENT DEPARTURES AND PERPENDICULAR DEPARTURE OF TARGET POINTS FROM BEST-FITTING PARABOLOID OF REVOLUTION. (.1 DEGREE)

POINT NO.	DX (FEET)	DY (FEET)	DZ (FEET)	D (FEET)
1	.0004	-.0035	.0062	.0071
2	0.0000	-.0017	.0030	.0034
4	-.0008	-.0032	.0057	.0066
8	-.0049	-.0049	.0121	.0140
9	-.0011	-.0008	.0024	.0028
10	.0006	.0003	-.0012	-.0014
11	.0019	.0007	-.0036	-.0041
12	.0019	.0005	-.0035	-.0041
13	.0035	.0004	-.0062	-.0072
14	.0023	0.0000	-.0041	-.0047
15	.0072	-.0010	-.0127	-.0146
16	-.0020	.0005	.0036	.0042
17	-.0006	.0002	.0012	.0014
18	-.0002	.0001	.0004	.0004
19	.0030	-.0023	-.0065	-.0076
20	.0001	-.0001	-.0004	-.0005
25	-.0003	.0033	.0058	.0067
26	0.0000	.0021	.0037	.0043
27	.0007	.0049	.0085	.0099
28	.0014	.0051	.0092	.0106
29	.0001	.0003	.0007	.0008
30	.0007	.0013	.0025	.0030
31	-.0009	-.0012	-.0027	-.0031
32	.0003	.0003	.0008	.0010
33	.0018	.0014	.0040	.0046
34	.0023	.0013	.0046	.0054
35	.0005	.0002	.0009	.0010
38	-.0052	0.0000	-.0089	-.0104
39	-.0037	.0005	-.0065	-.0075
40	.0015	-.0004	.0027	.0031
41	.0046	-.0019	.0086	.0100
42	-.0048	.0028	-.0096	-.0111
43	-.0064	.0049	-.0139	-.0161
44	-.0007	.0007	-.0017	-.0019
45	.0036	-.0047	.0102	.0118
46	.0007	-.0012	.0024.	.0028
47	.0004	-.0009	.0018	.0020
48	.0008	-.0030	.0054	.0062
49	.0001	-.0015	.0027	.0031
51	0.0000	-.0002	.0004	.0005
53	-.0013	-.0028	.0057	.0065
55	-.0041	-.0048	.0115	.0131
57	0.0000	0.0000	0.0000	0.0000
59	.0045	.0015	-.0086	-.0098
61	.0020	.0001	-.0036	-.0041
63	.0043	-.0008	-.0078	-.0090
65	.0026	-.0012	-.0051	-.0059
73	-.0001	.0015	.0027	.0031
75	.0006	.0033	.0060	.0069

TABLE 3. CONT. (.1 DEGREE)

POINT NO.	DX (FEET)	DY (FEET)	DZ (FEET)	D (FEET)
77	0.0000	0.0000	0.0000	0.0000
79	-.0011	-.0013	-.0031	-.0036
81	.0018	.0012	.0039	.0044
83	-.0012	-.0004	-.0022	-.0026
87	-.0032	.0006	-.0058	-.0067
89	-.0006	.0003	-.0013	-.0015
91	-.0030	.0025	-.0071	-.0081
93	.0018	-.0027	.0059	.0068
95	.0001	-.0003	.0007	.0008
97	.0004	-.0036	.0069	.0078
99	0.0000	-.0004	.0008	.0010
103	-.0024	-.0031	.0076	.0085
105	0.0000	0.0000	-.0001	-.0001
107	-.0011	-.0004	.0023	.0026
109	.0005	0.0000	-.0010	-.0012
113	.0014	-.0006	-.0030	-.0034
119	-.0004	.0010	.0021	.0023
123	.0003	.0023	.0044	.0050
125	0.0000	.0001	.0002	.0002
127	-.0008	-.0010	-.0026	-.0029
129	.0024	.0018	.0057	.0065
131	.0018	.0007	.0038	.0043
133	-.0018	-.0002	-.0036	-.0041
135	-.0011	.0001	-.0021	-.0024
137	-.0006	.0002	-.0013	-.0014
139	-.0037	.0029	-.0091	-.0102
141	.0019	-.0025	.0060	.0068
143	.0001	-.0004	.0008	.0009
145	0.0000	-.0012	.0024	.0027
146	0.0000	-.0009	.0019	.0022
147	.0001	.0010	-.0021	-.0023
149	-.0007	-.0014	.0032	.0036
150	-.0018	-.0028	.0068	.0076
151	-.0010	-.0012	.0033	.0037
155	.0043	.0014	-.0090	-.0101
156	.0040	.0008	-.0081	-.0091
157	.0022	.0001	-.0044	-.0049
159	.0018	-.0003	-.0037	-.0042
160	.0009	-.0003	-.0019	-.0022
161	.0025	-.0012	-.0055	-.0061
163	.0013	-.0011	-.0034	-.0038
164	.0004	-.0005	-.0014	-.0016
166	.0001	-.0002	-.0005	-.0005
169	-.0001	.0015	.0030	.0034
170	0.0000	-.0006	-.0012	-.0014
171	.0002	.0012	.0024	.0027
172	.0002	.0006	.0013	.0015
173	0.0000	-.0001	-.0002	-.0003
174	-.0006	-.0009	-.0022	-.0025
175	-.0006	-.0007	-.0019	-.0022
176	.0006	.0005	.0017	.0019

TABLE 3. CONT. (.1 DEGREE)

POINT NO.	DX (FEET)	DY (FEET)	DZ (FEET)	D (FEET)
177	.0005	.0003	.0013	.0015
178	.0001	0.0000	.0002	.0003
179	-.0014	-.0005	-.0031	-.0035
180	-.0015	-.0003	-.0031	-.0035
181	-.0041	-.0002	-.0082	-.0092
182	-.0048	.0002	-.0097	-.0108
183	-.0015	.0002	-.0031	-.0035
184	-.0032	.0010	-.0069	-.0077
185	-.0028	.0013	-.0062	-.0070
186	-.0047	.0031	-.0114	-.0127
187	-.0017	.0015	-.0047	-.0052
188	-.0002	.0002	-.0006	-.0007
189	.0001	-.0001	.0003	.0004
190	.0008	-.0016	.0037	.0041
191	-.0001	.0004	-.0008	-.0009
192	.0001	-.0008	.0018	.0020
193	.0006	-.0050	.0112	.0123
194	0.0000	-.0019	.0042	.0047
195	-.0002	-.0021	.0046	.0051
198	-.0009	-.0016	.0040	.0044
199	-.0021	-.0028	.0077	.0085
200	-.0010	-.0010	.0033	.0036
201	-.0001	-.0001	.0004	.0005
202	-.0007	-.0004	.0019	.0021
204	.0058	.0015	-.0131	-.0145
205	.0023	.0002	-.0050	-.0055
207	.0001	0.0000	-.0003	-.0003
209	.0010	-.0004	-.0024	-.0026
210	-.0004	.0002	.0011	.0012
212	-.0008	.0008	.0026	.0029
213	-.0021	.0028	.0076	.0084
214	-.0014	.0025	.0063	.0070
215	-.0001	.0004	.0009	.0010
216	-.0005	.0022	.0050	.0055
217	-.0001	.0013	.0029	.0032
218	0.0000	.0016	.0035	.0038
219	0.0000	-.0006	-.0014	-.0015
220	.0005	.0020	.0045	.0050
221	0.0000	-.0002	-.0004	-.0005
222	.0005	.0009	.0024	.0027
223	-.0014	-.0018	-.0049	-.0054
224	.0015	.0015	.0048	.0053
225	-.0003	-.0002	-.0009	-.0010
226	.0004	.0002	.0012	.0013
227	-.0011	-.0004	-.0027	-.0030
228	-.0010	-.0002	-.0023	-.0025
229	-.0041	-.0005	-.0090	-.0100
230	-.0040	0.0000	-.0087	-.0096
231	-.0010	.0001	-.0023	-.0026
232	-.0037	.0010	-.0083	-.0092
233	0.0000	0.0000	-.0001	-.0002
234	-.0018	.0010	-.0046	-.0051

TABLE 3. CONT. (.1 DEGREE)

POINT NO.	DX (FEET)	DY (FEET)	DZ (FEET)	D (FEET)
235	-.0011	.0009	-.0032	-.0035
236	.0014	-.0014	.0045	.0049
237	.0001	-.0001	.0003	.0004
238	.0005	-.0008	.0022	.0024
239	.0007	-.0018	.0043	.0047
240	.0004	-.0015	.0034	.0037
290	0.0000	.0003	-.0008	-.0008
294	0.0000	0.0000	0.0000	0.0000
296	.0013	.0013	-.0049	-.0052
306	.0009	-.0005	-.0027	-.0029
310	-.0005	.0010	.0030	.0032
312	-.0002	.0010	.0028	.0030
316	.0008	.0029	.0077	.0083
318	.0003	.0005	.0016	.0017
320	.0005	.0005	.0019	.0021
322	-.0001	-.0001	-.0005	-.0005
324	.0001	0.0000	.0004	.0005
326	-.0048	0.0000	-.0121	-.0130
328	-.0018	.0005	-.0048	-.0052
330	-.0028	.0016	-.0081	-.0088
332	.0003	-.0003	.0012	.0013
334	.0002	-.0004	.0012	.0012
336	.0002	-.0011	.0029	.0031
386	-.0003	-.0021	.0066	.0070
388	0.0000	0.0000	.0002	.0002
389	.0003	.0002	-.0013	-.0014
390	.0018	.0007	-.0061	-.0064
391	.0020	.0002	-.0061	-.0064
392	.0002	0.0000	-.0007	-.0008
393	-.0013	.0005	.0043	.0045
395	-.0006	.0009	.0034	.0036
396	-.0002	.0005	.0018	.0019
397	-.0001	.0017	.0052	.0055
398	.0002	.0018	.0055	.0058
400	.0002	.0002	.0009	.0010
401	.0003	.0002	.0012	.0013
402	.0007	.0003	.0024	.0025
403	.0017	.0002	.0054	.0057
404	.0013	-.0001	.0042	.0044
405	.0015	-.0006	.0050	.0053
406	.0014	-.0011	.0054	.0057
407	.0010	-.0014	.0053	.0056
408	.0004	-.0012	.0039	.0041
409	0.0000	-.0002	.0007	.0007
410	.0001	.0002	-.0009	-.0009
411	.0004	.0004	-.0023	-.0024
412	.0012	.0006	-.0048	-.0050
413	.0006	.0001	-.0022	-.0023
414	.0006	-.0001	-.0021	-.0022
415	.0013	-.0008	-.0053	-.0056
417	.0004	-.0007	-.0027	-.0028

TABLE 3. CONT. (.1 DEGREE)

POINT NO.	DX (FEET)	DY (FEET)	DZ (FEET)	D (FEET)
418	-.0001	.0007	.0026	.0027
420	0.0000	-.0001	-.0003	-.0004
424	-.0003	.0001	-.0013	-.0014
425	.0003	-.0001	.0013	.0013
426	.0004	-.0004	.0021	.0022
427	-.0002	.0003	-.0015	-.0016
431	-.0001	-.0003	.0014	.0014
432	-.0002	-.0003	.0016	.0017
433	0.0000	0.0000	-.0002	-.0002
434	.0008	.0003	-.0040	-.0041
436	.0011	-.0001	-.0047	-.0049
437	.0007	-.0003	-.0034	-.0035
439	0.0000	0.0000	.0004	.0004
440	.0001	-.0003	-.0013	-.0014
441	0.0000	0.0000	-.0001	-.0001
442	0.0000	-.0001	-.0006	-.0006
443	0.0000	-.0001	-.0007	-.0008
444	0.0000	0.0000	.0001	.0001
445	-.0002	-.0001	-.0013	-.0013
447	-.0005	0.0000	-.0021	-.0022
448	-.0005	0.0000	-.0021	-.0022
449	0.0000	0.0000	-.0004	-.0004
450	.0008	-.0006	.0044	.0046
451	-.0001	.0001	-.0007	-.0007
452	.0002	-.0005	.0023	.0024
453	0.0000	-.0010	.0051	.0052
454	-.0001	-.0007	.0039	.0040
455	-.0001	-.0002	.0017	.0017
456	0.0000	0.0000	.0004	.0004
459	.0002	0.0000	-.0011	-.0011
460	.0006	-.0001	-.0035	-.0036
462	0.0000	0.0000	-.0001	-.0001
463	-.0001	.0002	.0013	.0013
465	0.0000	.0002	.0011	.0011
466	0.0000	0.0000	.0002	.0002
467	0.0000	0.0000	.0004	.0004
468	-.0002	-.0002	-.0022	-.0022
469	-.0001	0.0000	-.0009	-.0009
470	-.0007	-.0002	-.0039	-.0040
471	-.0001	0.0000	-.0007	-.0007
472	0.0000	0.0000	-.0002	-.0003
473	.0007	-.0004	.0047	.0047
474	.0004	-.0004	.0031	.0032
475	-.0002	.0004	-.0025	-.0026
476	.0001	-.0005	.0032	.0033
477	0.0000	0.0000	.0003	.0003
478	0.0000	-.0001	.0016	.0016
479	0.0000	0.0000	.0009	.0009
481	0.0000	0.0000	-.0006	-.0007
482	-.0003	.0005	.0048	.0049
483	0.0000	.0003	.0029	.0029

TABLE 3. CONT. (.1 DEGREE)

POINT NO.	DX (FEET)	DY (FEET)	DZ (FEET)	D (FEET)
484	0.0000	.0001	.0015	.0016
485	.0002	.0001	.0019	.0019
486	0.0000	0.0000	0.0000	0.0000
487	0.0000	0.0000	-.0008	-.0008
488	-.0002	.0003	-.0032	-.0032
489	0.0000	.0002	-.0028	-.0028
490	.0001	.0002	-.0030	-.0030
492	.0001	0.0000	-.0014	-.0014
493	0.0000	0.0000	.0013	.0013
494	0.0000	.0001	.0023	.0023
495	0.0000	0.0000	.0007	.0007
496	-.0001	-.0001	-.0026	-.0026
497	-.0003	-.0001	-.0041	-.0042
498	0.0000	0.0000	-.0003	-.0003
499	-.0002	.0001	-.0029	-.0029
500	-.0001	.0003	-.0047	-.0047
501	0.0000	0.0000	.0051	.0051
512	1.8053	.1041	5.5568	5.8437
514	4.8732	.3487	19.7648	20.3597
516	5.1332	.9544	36.8501	37.2182
517	5.1007	-.9289	37.0532	37.4142
518	5.5392	-.3762	27.7679	28.3175
519	4.8707	-.2484	19.7345	20.3282
520	3.5278	-.1515	12.3552	12.8499
521	1.7929	-.0636	5.5117	5.7963
550	1.8513	-2.3576	44.0750	44.1768
551	1.4482	-2.2827	44.1490	44.2317
552	-1.4074	2.2616	44.1364	44.2167
553	-1.8259	2.3501	44.0571	44.1575
602	-.0003	-.0002	.0007	.0008
603	.0064	-.0009	-.0113	-.0130
604	.0002	-.0001	-.0004	-.0005
606	.0006	.0042	.0075	.0087
607	0.0000	0.0000	0.0000	0.0000
608	.0021	.0016	.0047	.0054
610	-.0042	.0025	-.0085	-.0099
611	.0024	-.0033	.0071	.0082
613	-.0005	-.0005	.0016	.0018
614	.0004	-.0001	-.0009	-.0010
615	.0001	-.0001	-.0004	-.0005
616	.0004	.0015	.0036	.0039
617	.0010	.0010	.0032	.0035
618	-.0031	.0009	-.0071	-.0078
619	-.0001	.0001	-.0006	-.0006
620	0.0000	-.0001	.0004	.0005
621	.0008	-.0005	-.0026	-.0028
622	.0003	.0005	.0017	.0018
623	-.0019	.0011	-.0056	-.0061
624	-.0001	-.0002	.0014	.0014
625	.0005	-.0002	-.0025	-.0026
626	0.0000	0.0000	.0003	.0003

TABLE 3. CONT. (.1 DEGREE)

POINT NO.	DX (FEET)	DY (FEET)	DZ (FEET)	D (FEET)
627	.0003	-.0001	.0016	.0017
900	-.0103	-.0720	.1267	.1461
902	-.0652	-.0487	.1420	.1637
903	-.0550	.0082	.0969	.1118
904	-.0719	.0425	.1438	.1663
906	.0119	.0801	.1404	.1621
907	.0243	.0410	.0820	.0949
908	.0189	.0142	.0409	.0473
909	.0544	-.0075	.0947	.1095
910	.0529	-.0314	.1068	.1233
911	.0470	-.0628	.1360	.1570
913	-.0167	-.0160	.0509	.0560
914	-.0251	.0074	.0575	.0632
915	-.0378	.0391	.1191	.1309
916	.0030	.0105	.0238	.0261
917	.0477	.0464	.1462	.1607
918	.0322	-.0092	.0729	.0803
919	.0135	-.0137	.0421	.0463
920	-.0202	-.0337	.1001	.1076
921	-.0389	.0235	.1163	.1249
922	.0160	.0263	.0778	.0837
923	.0089	-.0053	.0264	.0283
924	-.0061	-.0132	.0627	.0643
926	.0106	.0228	.1063	.1093
927	.0156	-.0068	.0718	.0738
928	1.6515	-2.3116	44.1729	44.2641
929	-1.6197	2.2965	44.1298	44.2192
1003	-.0003	-.0025	.0043	.0050
1039	-.0033	.0004	-.0058	-.0067

SECTION X.

FOCAL LENGTH AND VERTEX OF BEST FITTING PARABOLOID OF REVOLUTION

FOCAL LENGTH AND VERTEX OF BEST FITTING PARABOLOID OF REVOLUTION.

The focal length of the paraboloid which best fits the triangulated target points for each calibration was:

Static	=	36.016 feet ± .0010 feet
1 degree/second^2	=	36.014 feet ± .0012 feet
0.1 degree/second^2	=	36.000 feet ± .0012 feet

Points # 550, 551, 552, and 553 were situated on the feed structure of the antenna and their X, Y, Z coordinates may be utilized to exactly locate the foci of the best fitting paraboloid.

Target # 501 was situated near the mechanical center of the antenna. The tabulated X, Y, Z coordinates of this or any other target, with their signs reversed, locate the position of the vertex of the best fitting paraboloid of revolution with respect to the chosen target.

SECTION XI.

TRANSFORMED TARGET POINT COORDINATES AND COMPONENT RESIDUALS OF EACH DYNAMIC CALIBRATION REFERENCED TO THE CORRESPONDING COORDINATES OF THE STATIC CALIBRATION

TRANFORMED TARGET POINT COORDINATES AND COMPONENT RESIDUAL OF EACH DYNAMIC CALIBRATION REFERENCED TO THE CORRESPONDING COORDINATES OF THE STATIC CALIBRATION.

A least squares fit, minimizing the sum of the squares, of the vector distances between corresponding points of each of the dynamic calibrations and the static calibration was performed to determine the coordinates ΔX, ΔY, and ΔZ of translation, and the angles Alpha, Omega, and Kappa of rotation, and a scale factor Mu. The values of these parameters for the 1 degree /second^2 were as follows:

ΔX	= .0268 feet	sigma ΔX	= .00016 feet
ΔY	= -.0350 feet	sigma ΔY	= .00016 feet
ΔZ	= .0008 feet	sigma ΔZ	= .00016 feet
Alpha	= .000447 radians	sigma Alpha	= .000005 radians
Omega	= .000440 radians	sigma Omega	= .000007 radians
Kappa	= .000368 radians	sigma Kappa	= .000007 radians
Mu	= .000146	sigma Mu	= .000005

Table 4 presents the transformed coordinates XT, YT, and ZT, the component residuals VX, VY, and VZ, and the vector distance V referenced to the static target point coordinates. The root mean square vector distance was .0028 feet.

The parameters of transformation for the 0.1 degrees/second^2 were:

XT	= .0251 feet	sigma XT	= .00016 feet
YT	= -.0178 feet	sigma YT	= .00016 feet
ZT	= -.0014 feet	sigma ZT	= .00016 feet
Alpha	= .000452 radians	sigma Alpha	= .000005 radians
Omega	= .000335 radians	sigma Omega	= .000007 radians
Kappa	= .000288 radians	sigma Kappa	= .000007 radians
Mu	= .000122	sigma Mu	= .000005

Table 5 presents the transformed coordinates XT, YT, ZT, the component residuals VX, VY, and VZ, and the vector distance V referenced to the corresponding static target point coordinates. The root mean square vector distance was .0037 feet.

TABLE 4. TRANSFORM[illegible]
WITH THE VECTOR
CALIBRATION.

POINT NO.	XT (FEET)	YT (FEET)	ZT (FEET)	VX (FEET)	VY (FEET)	VZ (FEET)	V (FEET)
1	-5.5133	41.3735	12.1002	-.0049	-.0018	-.0025	.0058
2	.0036	41.7875	12.1214	-.0036	-.0027	-.0015	.0048
4	10.8709	40.1804	12.0284	-.0069	-.0007	.0021	.0073
8	29.4358	29.3222	11.9975	.0039	.0039	.0024	.0060
9	33.0586	25.2797	12.0239	.0013	.0043	.0051	.0068
10	36.2927	20.8024	12.1450	.0045	.0013	.0028	.0055
11	38.6257	15.9465	12.1157	.0035	.0010	.0016	.0040
12	40.1345	10.4033	11.9303	.0043	.0005	.0022	.0049
13	41.1944	5.0100	11.9495	.0048	.0019	.0019	.0055
14	41.5440	-.3567	11.9817	.0040	.0011	.0027	.0050
15	41.2379	-5.7129	12.0219	.0073	-.0013	.0014	.0076
16	40.3081	-11.1866	12.1530	.0057	-.0020	.0039	.0072
17	38.9258	-16.0209	12.3061	.0025	-.0037	.0018	.0048
18	36.5282	-21.0514	12.3455	.0077	-.0046	.0008	.0091
19	33.3276	-25.6440	12.2697	.0060	-.0036	-.0003	.0070
20	29.5056	-29.7781	12.2018	.0036	-.0059	.0030	.0077
25	4.8807	-41.6890	12.2347	-.0031	-.0064	.0007	.0072
27	-5.7301	-41.4464	12.1599	-.0032	-.0003	.0018	.0037
28	-10.9952	-40.5335	12.2503	-.0046	.0032	.0026	.0062
29	-16.3059	-38.5176	12.1411	.0141	.0127	-.0110	.0220
30	-21.0622	-36.4862	12.3211	.0006	.0005	-.0004	.0009
31	-25.7953	-33.0102	12.1765	-.0004	.0013	-.0001	.0014
32	-29.7978	-29.5724	12.2325	-.0004	.0041	.0024	.0048
35	-38.9190	-16.2979	12.3592	.0021	.0053	.0035	.0068
36	-40.7032	-11.0594	12.3450	.0077	0.0000	.0006	.0078
37	-41.5199	-5.4216	12.1771	.0046	.0036	.0001	.0058
38	-42.1333	-.1744	12.3083	.0052	.0019	-.0003	.0056
39	-41.6658	5.3975	12.2428	.0058	-.0046	0.0000	.0074
40	-40.2983	10.9306	12.1055	.0045	-.0030	-.0010	.0055
42	-36.0876	20.9359	12.0678	.0043	-.0053	-.0005	.0068
43	-33.2303	25.3696	12.1145	.0051	-.0030	-.0029	.0066
44	-29.6893	29.7055	12.2402	.0050	-.0047	-.0041	.0080
46	-20.9453	36.2029	12.1470	-.0019	-.0031	-.0008	.0038
47	-16.1411	38.6580	12.1733	-.0011	-.0025	-.0027	.0038
48	-10.9547	40.3162	12.1233	-.0013	-.0052	-.0027	.0060
49	-3.3887	40.1521	11.2677	-.0085	-.0040	.0032	.0100
51	7.1203	39.4194	11.1350	-.0016	-.0024	-.0008	.0030
53	17.1956	36.0662	11.0871	-.0026	-.0007	-.0014	.0031
55	25.9627	30.3701	11.0947	.0017	.0005	.0007	.0019
57	33.2388	22.5948	11.2109	.0039	.0015	.0031	.0052
59	37.8057	13.2745	11.1361	.0037	.0028	.0021	.0051
61	40.0926	3.0665	11.2210	.0032	-.0020	.0016	.0041
63	39.4251	-7.4064	11.1666	.0050	.0015	.0031	.0087
65	36.3635	-17.5048	11.3056	.0045	-.0022	.0012	.0053
73	2.9211	-40.2170	11.2866	-.0039	-.0024	.0006	.0067
75	-7.2536	-39.9397	11.4436	-.0020	.0022	-.0001	.0030
77	-17.2226	-36.4511	11.2787	-.0019	.0002	.0010	.0022
79	-26.5195	-30.8419	11.4792	.0008	.0024	.0011	.0028
81	-33.5405	-22.8805	11.4452	.0020	.0043	.0014	.0049

TABLE 4. CONT.

POINT NO.	XT (FEET)	YT (FEET)	ZT (FEET)	VX (FEET)	VY (FEET)	VZ (FEET)	V (FEET)
83	-38.2643	-13.4982	11.4244	.0037	.0012	.0018	.0044
85	-40.0120	-3.4895	11.1892	.0073	.0007	.0012	.0074
87	-39.8634	7.5943	11.4221	.0050	.0006	.0026	.0057
89	-36.4541	17.0919	11.2488	.0048	-.0019	-.0014	.0054
91	-30.7852	25.8179	11.1933	.0057	-.0026	-.0026	.0068
93	-22.9147	33.1384	11.2743	-.0001	-.0020	-.0028	.0035
95	-13.6515	37.7996	11.2125	-.0041	0.0000	-.0020	.0046
97	-4.9015	37.1939	9.7742	-.0041	-.0034	-.0017	.0056
99	4.9203	37.1232	9.7312	-.0035	-.0020	-.0017	.0044
103	22.7626	29.7444	9.7418	-.0048	.0023	.0024	.0059
105	29.8082	22.6962	9.7430	-.0023	.0017	.0020	.0035
107	34.8383	14.3065	9.8481	.0023	.0025	.0036	.0050
109	37.2638	4.6547	9.7847	.0026	-.0006	.0049	.0056
113	34.5924	-14.5467	9.7772	.0065	-.0022	-.0021	.0072
119	14.2736	-34.7947	9.8224	-.0020	-.0034	.0014	.0042
123	-5.2550	-37.2397	9.8222	-.0037	-.0014	.0009	.0041
125	-14.6314	-34.6157	9.8028	-.0031	.0003	.0007	.0032
127	-22.9972	-29.7426	9.8083	.0017	.0044	-.0018	.0051
129	-29.9513	-22.8451	9.8534	-.0005	.0067	.0026	.0072
131	-34.8437	-14.2699	9.8440	.0041	.0039	.0012	.0058
133	-37.3360	-4.9366	9.8408	.0055	.0022	-.0006	.0059
135	-37.3131	5.0814	9.8386	.0038	.0012	.0020	.0045
137	-34.7655	14.3694	9.8200	.0046	-.0003	-.0009	.0047
139	-29.8799	22.8065	9.7949	.0005	-.0055	.0004	.0056
141	-22.9542	29.7415	9.8029	.0003	-.0030	-.0021	.0037
143	-14.4394	34.6505	9.7795	-.0053	-.0033	.0026	.0068
145	-2.8869	35.8969	9.0022	-.0037	.0001	0.0000	.0037
146	1.7017	36.0899	9.0574	-.0079	-.0015	.0008	.0081
147	6.5085	35.6398	9.1058	-.0037	-.0006	-.0007	.0038
148	11.3583	34.3727	9.1002	-.0020	-.0004	-.0005	.0021
149	15.5771	32.5482	9.0372	-.0033	-.0004	.0008	.0035
150	19.5895	30.2010	9.0017	-.0009	.0014	-.0011	.0020
151	23.1383	27.1306	8.6253	0.0000	-.0009	.0016	.0019
155	34.0927	11.3576	9.0313	.0008	.0001	.0024	.0026
156	35.3145	7.4061	9.0287	.0028	-.0022	.0013	.0038
157	35.8560	2.5424	8.9662	.0061	-.0035	.0007	.0071
158	36.0249	-2.1032	9.0409	.0098	.0013	-.0032	.0104
159	35.4376	-6.9402	9.0505	.0067	-.0020	-.0006	.0070
160	34.0582	-11.4947	8.9710	.0047	-.0024	-.0003	.0053
161	32.6869	-15.7459	9.1349	.0065	-.0015	.0007	.0067
163	27.3664	-23.6761	9.0883	.0017	-.0045	-.0012	.0053
164	24.0914	-26.9818	9.0816	.0020	-.0049	-.0003	.0053
166	16.3529	-32.2948	9.0955	.0010	-.0038	0.0000	.0039
167	11.9752	-34.2731	9.1510	-.0038	-.0055	.0009	.0067
169	2.7211	-36.3157	9.2064	-.0028	-.0049	-.0003	.0056
170	-1.9570	-36.2068	9.1267	-.0047	-.0001	-.0019	.0051
171	-6.7337	-35.7329	9.1768	-.0034	-.0030	.0033	.0056
172	-11.3405	-34.4926	9.1474	-.0031	.0030	-.0016	.0047
173	-15.8788	-32.8127	9.2257	.0006	-.0043	-.0047	.0064
174	-19.9878	-30.4462	9.2007	.0030	.0009	.0011	.0033
175	-23.5223	-27.6301	9.1372	.0018	.0056	-.0045	.0075

TABLE 4. CONT.

POINT NO.	XT (FEET)	YT (FEET)	ZT (FEET)	VX (FEET)	VY (FEET)	VZ (FEET)	V (FEET)
176	-26.9953	-24.3704	9.1809	-.0015	.0073	.0012	.0076
177	-29.9269	-20.6491	9.1768	.0009	.0016	.0006	.0019
178	-32.2983	-16.4478	9.1181	.0038	-.0005	-.0006	.0039
179	-34.1111	-12.2123	9.1077	.0043	.0053	.0012	.0069
180	-35.4957	-7.7519	9.1588	.0031	.0013	-.0006	.0034
181	-36.0114	-2.6755	9.0383	.0024	.0016	.0030	.0043
182	-35.9814	1.9903	9.0022	.0047	.0016	0.0000	.0050
183	-35.3154	6.6382	8.9569	.0040	.0002	.0014	.0043
184	-34.2982	11.0867	9.0098	.0015	-.0022	.0026	.0037
185	-32.3278	15.6823	8.9528	.0032	-.0010	0.0000	.0034
186	-30.2607	19.6703	9.0305	.0025	-.0017	-.0026	.0040
187	-27.5761	23.4532	9.0913	.0027	-.0054	-.0031	.0069
188	-24.0920	26.7623	9.0001	-.0015	-.0022	-.0017	.0032
189	-20.3408	29.8102	9.0426	-.0022	-.0026	-.0021	.0040
190	-16.4658	32.2527	9.1071	-.0023	-.0029	-.0031	.0049
191	-12.2066	34.0229	9.0681	-.0019	-.0033	-.0041	.0056
192	-7.5261	35.3211	9.0570	.0032	.0023	.0002	.0040
193	-4.2970	32.6807	7.5515	-.0036	-.0004	.0003	.0036
194	-.0153	33.2291	7.6657	-.0027	.0012	.0004	.0031
195	4.2378	32.8790	7.6328	-.0046	0.0000	-.0007	.0047
198	16.6337	28.5734	7.5889	-.0019	.0021	-.0005	.0029
199	20.2453	26.1520	7.5989	-.0030	.0038	.0009	.0050
200	23.5016	23.2551	7.5869	.0006	.0025	.0013	.0029
201	26.3185	19.9406	7.5699	.0016	.0013	-.0002	.0021
202	28.7368	16.6093	7.6487	0.0000	-.0001	.0017	.0017
204	31.9777	8.4368	7.5781	.0024	.0017	.0021	.0037
205	32.8277	4.1361	7.5986	.0080	-.0011	-.0027	.0085
207	32.9349	-4.4165	7.6618	.0036	-.0017	.0046	.0061
208	31.7659	-9.0404	7.5748	.0053	.0004	-.0020	.0057
209	30.4564	-12.9533	7.6033	.0053	-.0023	-.0005	.0058
210	28.5123	-16.8389	7.6192	.0039	-.0010	-.0024	.0047
212	23.4032	-23.5984	7.6711	.0027	-.0052	-.0026	.0064
213	20.0424	-26.4825	7.6691	.0017	-.0063	-.0025	.0070
214	16.4553	-28.8767	7.6743	-.0019	-.0056	.0003	.0060
215	12.3401	-30.8051	7.6459	.0001	-.0053	-.0005	.0053
217	4.1222	-32.9559	7.6592	-.0035	-.0007	.0007	.0036
218	-.1945	-33.2336	7.6703	-.0044	-.0004	-.0004	.0044
219	-4.4523	-32.9569	7.6728	-.0046	-.0012	.0013	.0050
220	-8.9926	-32.0984	7.7164	-.0019	-.0020	.0007	.0029
221	-12.8847	-30.7460	7.7134	-.0024	-.0005	-.0014	.0028
222	-16.7536	-28.6895	7.6630	-.0036	.0021	-.0028	.0051
223	-20.3495	-26.4149	7.7113	-.0026	.0012	0.0000	.0029
224	-23.3152	-23.3703	7.5678	-.0017	.0059	.0011	.0063
225	-26.4803	-20.2059	7.6984	-.0005	.0050	.0003	.0050
226	-28.8350	-16.4340	7.6448	.0005	.0033	.0016	.0037
227	-30.8013	-12.5328	7.6720	.0003	.0015	.0022	.0027
228	-32.1404	-8.3049	7.6703	.0012	.0040	.0028	.0051
229	-32.8471	-4.2735	7.6086	.0025	.0009	.0004	.0027
230	-33.2020	.0205	7.6383	.0024	.0011	.0016	.0031
231	-33.1136	4.1883	7.7302	.0016	.0011	.0028	.0034

TABLE 4. CONT.

POINT NO.	XT (FEET)	YT (FEET)	ZT (FEET)	VX (FEET)	VY (FEET)	VZ (FEET)	V (FEET)
232	-32.0310	8.7776	7.6462	.0020	-.0008	-.0001	.0022
233	-30.6947	12.7197	7.6648	.0022	-.0014	-.0014	.0030
234	-28.8959	16.5631	7.6948	.0011	-.0013	0.0000	.0018
235	-26.2773	20.1303	7.6019	.0014	-.0008	-.0014	.0022
236	-23.6181	23.4060	7.6778	.0029	.0011	.0003	.0032
237	-20.0807	26.1948	7.5657	.0021	-.0026	-.0042	.0054
238	-16.5914	28.7229	7.6408	-.0002	-.0005	-.0013	.0014
239	-12.5448	30.5480	7.5727	-.0008	-.0019	-.0011	.0024
240	-8.6328	31.9808	7.6221	-.0041	-.0007	-.0033	.0053
290	.0313	28.6390	5.6894	-.0043	-.0011	.0007	.0046
294	14.4363	24.6931	5.6777	-.0037	.0020	.0012	.0044
296	20.4358	19.9720	5.6623	-.0026	.0026	.0010	.0039
298	24.8703	14.0025	5.6512	.0010	-.0075	0.0000	.0075
306	24.5646	-14.1909	5.5895	.0026	-.0008	-.0027	.0039
308	20.0150	-20.6352	5.7398	.0019	.0003	-.0020	.0028
310	13.7891	-25.0586	5.6793	-.0053	-.0011	.0004	.0054
312	7.0138	-27.9171	5.7543	-.0050	-.0026	0.0000	.0057
318	-14.6700	-24.7728	5.7521	-.0038	.0004	.0038	.0054
320	-20.5476	-20.1181	5.7366	-.0011	.0022	.0022	.0034
322	-24.9414	-14.0732	5.6933	-.0004	.0030	-.0013	.0033
324	-27.8804	-7.2600	5.7626	-.0004	.0032	0.0000	.0032
326	-28.7161	.3179	5.7122	.0018	.0014	.0012	.0026
328	-27.7477	7.6824	5.7480	.0029	.0026	.0006	.0040
330	-24.7966	14.4691	5.7096	.0030	.0024	-.0001	.0039
332	-20.1724	20.2781	5.6810	.0019	.0008	-.0011	.0024
334	-14.2548	24.8717	5.7078	-.0021	.0014	-.0013	.0029
336	-7.2611	27.7092	5.6978	-.0011	-.0015	-.0015	.0024
388	14.6647	18.5381	3.8784	.0014	.0024	.0012	.0031
389	18.9932	14.1350	3.8903	-.0004	-.0011	-.0002	.0012
390	22.2097	8.6581	3.9386	-.0003	.0022	.0016	.0028
391	23.4809	2.5457	3.8676	.0032	-.0007	-.0001	.0033
392	23.4590	-3.6038	3.9083	-.0005	.0005	.0009	.0012
393	21.9361	-9.6646	3.9930	-.0008	-.0005	.0007	.0012
395	14.4614	-19.3624	4.0551	-.0014	-.0015	-.0003	.0021
396	8.9299	-22.4416	4.0500	-.0031	-.0007	.0001	.0032
397	2.4700	-23.8652	4.0022	.0009	-.0020	-.0015	.0026
398	-3.6517	-23.6866	3.9928	-.0020	-.0006	.0004	.0022
400	-14.9194	-18.9290	4.0307	-.0016	-.0008	.0013	.0023
401	-19.3378	-14.5331	4.0623	-.0037	.0004	.0023	.0044
402	-22.3391	-9.1380	4.0473	-.0017	.0015	-.0002	.0022
403	-23.7859	-2.9532	3.9960	-.0012	.0003	-.0013	.0018
404	-23.6873	3.2660	3.9722	0.0000	.0019	.0029	.0034
405	-22.0911	9.3299	3.9999	-.0001	.0005	-.0022	.0023
406	-19.0666	14.7248	4.0360	.0023	.0022	-.0032	.0045
407	-14.3000	19.2519	3.9989	-.0013	-.0002	-.0014	.0019
408	-9.1176	22.1855	3.9993	-.0029	.0002	-.0004	.0029
409	5.2618	20.4591	3.0983	-.0038	0.0000	-.0006	.0039
410	10.2783	18.2297	3.0413	-.0033	-.0002	-.0021	.0039
411	14.7918	14.7993	3.0352	-.0042	-.0019	.0006	.0047
412	18.3156	10.4403	3.0880	.0026	.0007	-.0035	.0046
413	20.1827	5.3795	3.0256	-.0029	.0011	.0002	.0031

TABLE 4. CONT.

POINT NO.	XT (FEET)	YT (FEET)	ZT (FEET)	VX (FEET)	VY (FEET)	VZ (FEET)	V (FEET)
415	18.3752	-10.9197	3.1671	-.0010	-.0027	-.0008	.0030
417	10.6744	-18.5546	3.1795	-.0029	0.0000	-.0006	.0030
418	5.5292	-20.5274	3.1409	.0001	-.0002	-.0020	.0020
420	-10.5816	-18.7571	3.2219	-.0042	.0016	-.0007	.0045
424	-20.8037	5.4507	3.2112	-.0004	-.0023	-.0021	.0032
425	-18.4337	10.4483	3.1195	-.0016	.0031	-.0001	.0035
426	-15.2124	14.8645	3.1414	-.0013	-.0011	-.0014	.0022
427	-10.6706	18.1965	3.0907	-.0009	-.0006	-.0044	.0045
431	6.8877	15.5216	2.0052	-.0014	.0019	-.0013	.0027
432	10.8615	12.9908	1.9940	-.0019	-.0004	-.0017	.0026
433	13.9754	9.9208	2.0401	-.0031	-.0009	-.0013	.0035
434	16.0239	6.0870	2.0334	-.0023	0.0000	.0002	.0023
437	16.0387	-6.9697	2.1218	.0002	-.0011	-.0004	.0012
439	9.9732	-14.1345	2.0785	-.0021	-.0003	-.0013	.0025
440	6.0292	-16.2656	2.0868	.0007	.0005	-.0014	.0017
441	1.7351	-17.2911	2.0960	-.0032	.0010	-.0002	.0033
442	-2.9009	-17.0803	2.0800	-.0032	-.0015	-.0001	.0035
443	-7.0104	-15.8901	2.0928	-.0040	.0005	.0006	.0040
444	-10.9579	-13.3427	2.0697	-.0005	-.0001	-.0002	.0006
445	-14.0561	-9.9975	2.0619	-.0025	-.0008	.0003	.0027
447	-17.2734	-1.7312	2.0898	-.0004	.0014	.0001	.0015
448	-16.9811	2.6887	2.0498	-.0008	.0002	.0013	.0016
449	-16.0133	6.6579	2.0914	-.0018	-.0005	.0003	.0020
450	-13.2818	10.8722	2.0486	-.0023	0.0000	0.0000	.0023
451	-9.9918	13.8802	2.0304	-.0036	.0011	-.0009	.0039
452	-6.2724	16.0238	2.0588	-.0004	-.0012	-.0013	.0019
453	-.2507	13.9607	1.3586	-.0038	.0031	-.0007	.0049
454	3.3077	13.0314	1.2564	.0016	.0046	0.0000	.0048
455	6.5132	11.7147	1.2500	-.0028	.0006	.0008	.0030
456	9.5100	9.5725	1.2658	-.0036	-.0012	-.0011	.0040
460	13.2228	-3.6677	1.3002	-.0033	.0003	-.0003	.0034
462	9.6384	-9.7697	1.3092	-.0019	-.0005	-.0014	.0025
463	6.8194	-11.8602	1.2993	-.0038	.0004	.0002	.0038
465	-.0485	-13.7497	1.3131	-.0010	.0008	.0004	.0014
466	-3.5962	-13.4165	1.3396	-.0030	.0015	-.0018	.0039
467	-6.8293	-12.1064	1.3389	-.0031	.0014	.0025	.0042
468	-9.5146	-9.6834	1.2766	-.0025	.0027	-.0011	.0039
469	-11.9293	-7.0058	1.3269	-.0002	.0015	-.0024	.0028
470	-13.0839	-3.7799	1.2841	-.0018	.0012	.0006	.0023
471	-13.7649	-.2350	1.3140	-.0011	-.0003	.0013	.0018
472	-13.2174	3.3461	1.2901	-.0024	.0015	.0018	.0034
473	-11.8514	6.6888	1.2914	.0001	.0017	-.0013	.0021
474	-9.6473	9.2528	1.2418	-.0015	.0010	-.0006	.0020
475	-7.1236	11.8076	1.3193	-.0032	.0014	-.0023	.0042
476	-3.7568	13.1592	1.3032	-.0028	.0006	-.0021	.0036
477	-.6796	9.0308	.5726	-.0018	.0013	-.0021	.0031
478	3.8712	7.9196	.5417	-.0035	.0015	-.0009	.0039
479	7.2845	4.9331	.5427	-.0029	.0002	-.0015	.0033
481	8.0325	-4.0404	.5625	-.0012	.0011	-.0004	.0017
482	4.9470	-7.5698	.5725	-.0038	.0013	-.0002	.0041

TABLE 4. CONT.

POINT NO.	XT (FEET)	YT (FEET)	ZT (FEET)	VX (FEET)	VY (FEET)	VZ (FEET)	V (FEET)
483	.5315	-9.0369	.5723	-.0033	.0013	.0001	.0035
484	-3.9939	-8.1186	.5691	-.0016	.0020	.0006	.0027
485	-7.4428	-5.2862	.5816	-.0022	.0021	.0006	.0031
486	-9.1779	-.7747	.5897	-.0017	.0001	-.0007	.0019
488	-4.8464	7.4333	.5468	-.0007	.0022	-.0037	.0044
489	.7960	6.2247	.2732	-.0014	.0015	-.0014	.0025
490	3.6173	4.8200	.2518	-.0023	.0022	-.0011	.0034
492	6.2579	-.9191	.2786	-.0034	.0022	-.0032	.0052
493	5.1556	-4.0617	.3032	-.0011	.0010	-.0018	.0024
494	2.1806	-5.9152	.2786	-.0019	-.0003	-.0018	.0027
495	-1.2290	-6.4800	.3011	-.0020	.0023	.0018	.0036
496	-3.9526	-5.1690	.2926	-.0035	.0009	-.0004	.0036
497	-6.0093	-2.5746	.2913	-.0020	.0017	.0006	.0027
498	-6.5273	.6182	.2977	-.0023	.0019	-.0002	.0030
499	-5.0628	3.5896	.2638	-.0008	.0012	-.0008	.0017
500	-2.4984	5.7891	.2731	-.0022	.0027	-.0023	.0042
501	-.0943	-.1076	.0050	-.0037	.0036	.0027	.0058
512	-23.3641	-1.4714	9.9498	-.0009	.0017	.0003	.0019
514	-17.7272	-1.3643	23.1678	-.0013	-.0004	-.0023	.0027
516	-10.0015	-1.9213	38.3113	-.0051	.0021	.0016	.0058
517	-9.9001	1.7514	38.4804	-.0048	.0030	.0012	.0058
518	-14.3476	.8990	30.3118	-.0030	0.0000	.0004	.0030
519	-17.7564	.8140	23.1314	.0011	-.0026	-.0042	.0051
520	-20.5429	.7744	16.2988	-.0008	.0020	-.0014	.0026
521	-23.4047	.7079	9.9020	.0008	.0031	.0006	.0033
550	-3.0232	3.8298	44.4448	-.0052	.0019	.0019	.0059
551	-2.3588	3.7062	44.4481	-.0054	.0003	.0022	.0058
552	2.3326	-3.6887	44.4313	-.0044	-.0008	.0015	.0047
553	3.0244	-3.8337	44.4240	-.0058	-.0001	.0033	.0067
602	33.0081	24.5774	11.7539	-.0016	.0012	.0058	.0061
603	40.7487	-6.1082	11.7761	.0065	.0005	.0013	.0066
604	35.8073	-21.2785	12.0449	.0069	-.0032	.0012	.0078
606	-6.1487	-40.9068	11.8868	-.0013	-.0017	-.0017	.0028
607	-21.3134	-35.9265	12.1154	.0001	.0026	-.0031	.0041
608	-33.1196	-24.8267	11.8946	.0057	.0014	.0037	.0069
611	-24.7316	33.1600	11.8864	-.0012	-.0063	-.0009	.0065
613	23.6615	22.4744	7.3958	-.0010	.0070	.0024	.0075
614	31.3025	-9.2596	7.3953	.0069	.0007	.0016	.0072
615	22.7291	-23.5520	7.4401	.0005	-.0013	-.0021	.0025
616	-9.3357	-31.5536	7.5194	-.0057	-.0004	.0006	.0058
617	-23.4804	-22.7438	7.4170	-.0024	.0032	.0056	.0069
618	-31.5943	9.1028	7.4928	.0018	-.0023	.0034	.0045
620	14.5083	23.9755	5.4532	-.0034	-.0002	-.0033	.0048
621	23.9449	-14.5881	5.4613	.0039	-.0030	-.0030	.0058
622	-14.8781	-24.1488	5.5854	-.0025	.0015	0.0000	.0030
623	-24.1779	14.5917	5.5279	.0021	-.0001	-.0021	.0029
624	7.1139	14.8531	1.8856	-.0029	.0013	.0004	.0033
626	-7.2267	-15.2472	1.9771	-.0036	.0018	0.0000	.0040
627	-15.4120	6.9740	1.9879	-.0017	-.0008	.0018	.0027

TABLE 4. CONT.

POINT NO.	XT (FEET)	YT (FEET)	ZT (FEET)	VX (FEET)	VY (FEET)	VZ (FEET)	V (FEET)
900	5.7286	40.9494	12.0316	-.0062	.0014	.0022	.0068
902	32.9684	24.8853	12.0357	.0030	.0061	.0030	.0074
903	40.9254	-5.9302	12.0047	.0071	0.0000	-.0004	.0071
904	36.1298	-21.1562	12.3672	.0074	-.0030	.0015	.0082
906	-5.9315	-41.1265	12.1711	.0001	-.0027	-.0015	.0031
907	-21.1790	-36.1737	12.3061	-.0032	.0041	-.0005	.0053
908	-33.2401	-25.1511	12.1136	.0039	.0021	.0006	.0045
909	-41.4079	5.5434	12.2406	.0062	-.0027	-.0002	.0068
910	-35.7310	21.0054	12.0665	.0033	-.0029	0.0000	.0044
911	-25.0669	33.1660	12.1777	.0014	-.0057	-.0020	.0062
913	23.5614	22.8187	7.5298	.0010	.0032	.0009	.0035
914	31.4729	-9.1752	7.5333	.0044	-.0011	-.0023	.0051
915	22.9986	-23.5659	7.6753	.0047	-.0030	-.0008	.0056
916	-9.1382	-31.8324	7.6427	-.0011	-.0011	-.0012	.0020
917	-23.3962	-25.0035	7.6471	-.0025	.0037	.0023	.0050
918	-31.8184	8.9438	7.6698	.0034	-.0017	-.0013	.0040
920	14.4373	24.2989	5.6604	-.0039	.0005	-.0009	.0040
921	24.2154	-14.4932	5.6679	.0012	-.0024	-.0038	.0046
922	-14.7480	-24.4362	5.7415	-.0034	.0003	.0027	.0044
923	-24.4854	14.5389	5.6606	.0017	0.0000	-.0017	.0024
924	6.9957	15.1884	2.0076	-.0033	-.0001	0.0000	.0033
926	-7.0941	-15.5539	2.1410	-.0030	.0011	.0003	.0032
927	-15.7416	6.7668	2.1137	-.0007	-.0005	.0023	.0024
928	-2.6893	3.7483	44.5034	-.0050	.0012	.0026	.0057
929	2.6803	-3.7454	44.4574	-.0052	.0010	.0028	.0060
1039	-41.6199	5.8932	12.2517	.0066	-.0009	.0046	.0081
1600	5.4346	40.8591	11.7873	-.0105	-.0002	.0056	.0119

TABLE 5. TRANSFORMED COORDINATES AND COMPONENT RESIDUALS ALONG WITH THE VECTOR DISTANCE FROM THE .1 DEGREE/SECOND CALIBRATION.

POINT NO.	XT (FEET)	YT (FEET)	ZT (FEET)	VX (FEET)	VY (FEET)	VZ (FEET)	V (FEET)
1	-5.5165	41.3675	12.0979	-.0017	.0041	-.0002	.0044
2	.0014	41.7794	12.1203	-.0014	.0053	-.0004	.0055
4	10.8654	40.1726	12.0300	-.0014	.0070	.0005	.0071
8	29.4391	29.3175	11.9998	.0006	.0086	.0001	.0086
9	33.0624	25.2749	12.0272	-.0024	.0091	.0018	.0096
10	36.2957	20.7967	12.1470	.0015	.0070	.0005	.0072
11	38.6295	15.9421	12.1198	-.0002	.0054	-.0024	.0059
12	40.1408	10.3995	11.9329	-.0019	.0043	-.0003	.0048
13	41.2002	5.0107	11.9512	-.0009	.0012	.0002	.0016
14	41.5509	-.3587	11.9824	-.0028	.0011	.0020	.0037
15	41.2476	-5.7142	12.0224	-.0023	0.0000	.0009	.0025
16	40.3133	-11.1865	12.1575	.0005	-.0021	-.0005	.0022
17	38.9311	-16.0204	12.3070	-.0027	-.0042	.0009	.0051
18	36.5365	-21.0507	12.3459	-.0005	-.0053	.0004	.0054
19	33.3339	-25.6410	12.2710	-.0002	-.0066	-.0016	.0068
20	29.5117	-29.7785	12.2034	-.0022	-.0055	.0014	.0061
25	4.8787	-41.6856	12.2374	-.0011	-.0098	-.0019	.0101
27	-5.7322	-41.4403	12.1619	-.0011	-.0064	-.0001	.0065
28	-10.9981	-40.5238	12.2527	-.0017	-.0064	.0002	.0066
29	-16.3089	-38.5107	12.1432	.0171	.0058	-.0131	.0223
30	-21.0686	-36.4795	12.3231	.0070	-.0061	-.0024	.0096
31	-25.8027	-33.0012	12.1783	.0069	-.0076	-.0019	.0105
32	-29.8001	-29.5695	12.2352	.0018	.0012	-.0002	.0022
35	-38.9246	-16.2906	12.3603	.0077	-.0019	.0024	.0083
38	-42.1391	-.1717	12.3133	.0110	-.0007	-.0053	.0122
39	-41.6692	5.3938	12.2448	.0092	-.0009	-.0019	.0095
40	-40.3057	10.9297	12.1086	.0119	-.0021	-.0041	.0127
41	-38.4820	16.0879	12.0864	.0119	-.0004	-.0056	.0131
42	-36.0934	20.9323	12.0703	.0101	-.0017	-.0030	.0107
43	-33.2338	25.3665	12.1135	.0086	0.0000	-.0019	.0089
44	-29.6917	29.7030	12.2404	.0074	-.0022	-.0043	.0089
45	-25.5144	33.2671	12.2136	.0073	.0020	-.0002	.0075
46	-20.9505	36.2003	12.1457	.0032	-.0005	.0004	.0033
47	-16.1445	38.6309	12.1700	.0022	.0045	.0005	.0051
48	-10.9575	40.3075	12.1179	.0014	.0034	.0026	.0045
49	-3.3962	40.1459	11.2709	-.0010	.0021	0.0000	.0024
51	7.1192	39.4101	11.1337	-.0005	.0068	.0004	.0068
53	17.1953	36.0580	11.0858	-.0023	.0074	-.0001	.0077
55	25.9643	30.3610	11.0942	.0001	.0096	.0012	.0097
57	33.2433	22.5892	11.2147	-.0005	.0071	-.0006	.0072
59	37.8134	13.2702	11.1383	-.0039	.0071	0.0000	.0081
61	40.0981	3.0624	11.2235	-.0022	.0020	-.0008	.0031
63	39.4341	-7.4080	11.1673	-.0009	.0031	.0024	.0041
65	36.3718	-17.5031	11.3053	-.0037	-.0042	.0015	.0058
73	2.9202	-40.2126	11.2893	-.0060	-.0098	-.0020	.0105
75	-7.2561	-39.9317	11.4434	.0004	-.0057	0.0000	.0058
77	-17.2232	-36.4430	11.2790	-.0013	-.0078	.0007	.0080
79	-26.5223	-30.8341	11.4787	.0036	-.0049	.0016	.0063

TABLE 5. CONT.

POINT NO.	XT (FEET)	YT (FEET)	ZT (FEET)	VX (FEET)	VY (FEET)	VZ (FEET)	V (FEET)
81	-33.5431	-22.8741	11.4473	.0046	-.0020	-.0006	.0051
83	-38.2683	-13.4970	11.4267	.0077	0.0000	-.0004	.0077
87	-39.8691	7.5923	11.4252	.0107	.0026	-.0004	.0110
89	-36.4579	17.0886	11.2507	.0086	.0013	-.0033	.0093
91	-30.7869	25.8147	11.1948	.0074	.0005	-.0039	.0084
93	-22.9186	33.1339	11.2737	.0037	.0024	-.0022	.0050
95	-13.6577	37.7932	11.2099	.0020	.0063	.0005	.0066
97	-4.9074	37.1856	9.7741	.0017	.0048	-.0016	.0054
99	4.9183	37.1139	9.7305	-.0015	.0072	-.0010	.0074
103	22.7607	29.7374	9.7448	-.0029	.0093	-.0005	.0097
105	29.8095	22.6880	9.7422	-.0036	.0099	.0028	.0110
107	34.8409	14.3034	9.8505	-.0002	.0056	.0012	.0058
109	37.2683	4.6519	9.7916	-.0018	.0021	-.0019	.0034
113	34.6024	-14.5448	9.7776	-.0034	-.0041	-.0025	.0059
119	14.2800	-34.7904	9.8215	-.0084	-.0077	.0023	.0116
123	-5.2563	-37.2332	9.8215	-.0024	-.0079	.0016	.0085
125	-14.6301	-34.6087	9.8009	-.0044	-.0066	.0026	.0084
127	-22.9987	-29.7344	9.8058	.0032	-.0037	.0006	.0049
129	-29.9537	-22.8384	9.8560	.0018	0.0000	0.0000	.0018
131	-34.8455	-14.2652	9.8454	.0059	-.0007	-.0001	.0060
133	-37.3399	-4.9326	9.8419	.0094	-.0017	-.0017	.0098
135	-37.3156	5.0814	9.8413	.0063	.0012	-.0006	.0065
137	-34.7683	14.3689	9.8218	.0074	.0001	-.0027	.0079
139	-29.8834	22.8019	9.7954	.0040	-.0009	0.0000	.0041
141	-22.9579	29.7377	9.8041	.0040	.0007	-.0033	.0053
143	-14.4461	34.6461	9.7813	.0013	.0010	.0008	.0018
145	-2.8883	35.8904	9.0021	-.0023	.0066	.0001	.0070
146	1.6980	36.0826	9.0598	-.0042	.0057	-.0015	.0072
147	6.5081	35.6347	9.1058	-.0033	.0044	-.0007	.0056
149	15.5750	32.5399	9.0382	-.0012	.0078	-.0001	.0079
150	19.5897	30.1940	9.0012	-.0011	.0084	-.0006	.0085
151	23.1381	27.1225	8.8273	.0001	.0071	-.0003	.0071
155	34.0950	11.8495	9.0337	-.0014	.0082	0.0000	.0084
156	35.3200	7.3999	9.0306	-.0026	.0039	-.0005	.0048
157	35.8639	2.5415	8.9688	-.0012	-.0021	-.0018	.0031
159	35.4437	-6.9421	9.0515	.0006	-.0001	-.0016	.0017
160	34.0658	-11.4940	8.9714	-.0028	-.0031	-.0007	.0043
161	32.6954	-15.7437	9.1356	-.0019	-.0037	0.0000	.0042
163	27.3720	-23.6731	9.0880	-.0038	-.0075	-.0009	.0085
164	24.0971	-26.9807	9.0835	-.0036	-.0060	-.0022	.0074
169	2.7185	-36.3105	9.2082	-.0002	-.0101	-.0021	.0103
170	-1.9549	-36.2012	9.1228	-.0068	-.0057	.0019	.0091
171	-6.7353	-35.7306	9.1808	-.0018	-.0053	-.0006	.0057
172	-11.3415	-34.4818	9.1485	-.0021	-.0077	-.0007	.0081
173	-15.8817	-32.8078	9.2225	.0035	-.0092	-.0015	.0100
174	-19.9887	-30.4388	9.2023	.0039	-.0025	-.0004	.0047
175	-23.5240	-27.6244	9.1360	.0035	0.0000	-.0033	.0048
176	-26.9995	-24.3617	9.1821	.0026	-.0013	0.0000	.0029
177	-29.9297	-20.6440	9.1779	.0037	-.0034	-.0004	.0051
178	-32.2997	-16.4438	9.1188	.0052	-.0045	-.0013	.0070
179	-34.1135	-12.2080	9.1081	.0067	.0010	.0008	.0068

TABLE 5. CONT.

POINT NO.	XT (FEET)	YT (FEET)	ZT (FEET)	VX (FEET)	VY (FEET)	VZ (FEET)	V (FEET)
180	-35.4978	-7.7509	9.1595	.0052	.0003	-.0013	.0053
181	-36.0170	-2.6752	9.0434	.0080	.0015	-.0020	.0084
182	-35.9849	1.9926	9.0033	.0082	-.0006	-.0010	.0083
183	-35.3188	6.6351	8.9598	.0074	.0033	-.0014	.0082
184	-34.3046	11.0828	9.0119	.0079	.0016	.0005	.0081
185	-32.3325	15.6794	8.9544	.0079	.0018	-.0016	.0082
186	-30.2642	19.6683	9.0280	.0060	.0002	-.0001	.0060
187	-27.5792	23.4489	9.0899	.0058	-.0011	-.0017	.0061
188	-24.0965	26.7612	9.0002	.0029	-.0011	-.0018	.0036
189	-20.3458	29.8101	9.0417	.0027	-.0025	-.0012	.0039
190	-16.4726	32.2494	9.1069	.0044	.0003	-.0029	.0053
191	-12.2113	34.0181	9.0664	.0027	.0014	-.0024	.0039
192	-7.5271	35.3191	9.0542	.0042	.0043	.0030	.0067
193	-4.3013	32.6752	7.5528	.0006	.0050	-.0009	.0051
194	-.0185	33.2241	7.6671	.0004	.0062	-.0009	.0063
195	4.2366	32.8751	7.6321	-.0034	.0038	0.0000	.0051
198	16.6337	28.5701	7.5916	-.0019	.0054	-.0032	.0066
199	20.2437	26.1501	7.6010	-.0014	.0057	-.0011	.0060
200	23.5005	23.2508	7.5905	.0017	.0068	-.0002	.0070
201	26.3218	19.9333	7.5684	-.0016	.0086	.0012	.0088
202	28.7384	16.6062	7.6500	-.0016	.0029	.0004	.0033
204	31.9809	8.4368	7.5783	-.0007	.0017	.0019	.0027
205	32.8358	4.1349	7.5975	0.0000	0.0000	-.0016	.0016
207	32.9407	-4.4184	7.6681	-.0025	.0001	-.0016	.0030
209	30.4627	-12.9529	7.6040	-.0009	-.0027	-.0012	.0031
210	28.5226	-16.8377	7.6174	-.0063	-.0022	-.0006	.0067
212	23.4084	-23.5959	7.6725	-.0024	-.0077	-.0040	.0090
213	20.0472	-26.4818	7.6678	-.0030	-.0070	-.0012	.0078
214	16.4580	-28.8755	7.6765	-.0046	-.0068	-.0018	.0084
215	12.3427	-30.8022	7.6454	-.0024	-.0082	0.0000	.0085
216	8.3809	-32.1765	7.6810	-.0022	-.0057	.0027	.0067
217	4.1197	-32.9522	7.6592	-.0010	-.0044	.0007	.0046
218	-.1947	-33.2275	7.6688	-.0042	-.0065	.0010	.0078
219	-4.4521	-32.9533	7.6741	-.0048	-.0048	0.0000	.0069
220	-8.9923	-32.0934	7.7167	-.0022	-.0070	.0004	.0074
221	-12.8869	-30.7389	7.7112	-.0002	-.0076	.0007	.0076
222	-16.7566	-28.6802	7.6619	-.0006	-.0071	-.0017	.0074
223	-20.3537	-26.4113	7.7117	.0015	-.0023	-.0003	.0028
224	-23.3203	-23.3620	7.5693	.0033	-.0023	-.0003	.0041
225	-26.4836	-20.1984	7.6991	.0027	-.0024	-.0003	.0036
226	-28.8393	-16.4293	7.6481	.0048	-.0013	-.0016	.0053
227	-30.8080	-12.5290	7.6742	.0070	-.0022	0.0000	.0073
228	-32.1440	-8.5011	7.6705	.0048	.0002	.0026	.0055
229	-32.8511	-4.2690	7.6061	.0065	-.0035	.0029	.0080
230	-33.2054	.0222	7.6425	.0058	-.0005	-.0025	.0063
231	-33.1198	4.1896	7.7325	.0078	-.0001	.0005	.0078
232	-32.0371	8.7742	7.6481	.0081	.0025	-.0020	.0087
233	-30.6989	12.7189	7.6637	.0064	-.0006	-.0003	.0064
234	-28.8990	16.5636	7.6052	.0042	-.0018	-.0003	.0046
235	-26.2804	20.1289	7.6021	.0045	.0005	-.0016	.0049
236	-23.6174	23.4061	7.6795	.0022	.0010	-.0013	.0028

TABLE 5. CONT.

POINT NO.	XT (FEET)	YT (FEET)	ZT (FEET)	VX (FEET)	VY (FEET)	VZ (FEET)	V (FEET)
237	-20.0815	26.1911	7.5607	.0029	.0010	.0007	.0031
238	-16.5938	28.7178	7.6382	.0021	.0045	.0012	.0051
239	-12.5495	30.5458	7.5746	.0038	.0002	-.0030	.0049
240	-8.6366	31.9779	7.6197	-.0003	.0021	-.0009	.0023
290	.0291	28.6337	5.6399	-.0021	.0041	.0002	.0046
294	14.4376	24.6931	5.6792	-.0050	.0020	-.0002	.0054
296	20.4388	19.9710	5.6625	-.0056	.0036	.0008	.0067
306	24.5724	-14.1890	5.5856	-.0051	-.0027	.0011	.0059
310	13.7890	-25.0556	5.6812	-.0052	-.0043	-.0014	.0069
312	7.0155	-27.9154	5.7542	-.0067	-.0043	.0001	.0080
318	-14.6729	-24.7694	5.7548	-.0009	-.0029	.0011	.0033
320	-20.5528	-20.1190	5.7438	.0040	.0031	-.0049	.0071
322	-24.9427	-14.0717	5.6920	.0008	.0015	0.0000	.0017
324	-27.8835	-7.2587	5.7626	.0026	.0019	0.0000	.0032
326	-28.7193	.3169	5.7113	.0050	.0024	.0021	.0060
328	-27.7483	7.6819	5.7480	.0035	.0031	.0006	.0048
330	-24.7981	14.4699	5.7119	.0045	.0016	-.0024	.0054
332	-20.1710	20.2776	5.6793	.0005	.0013	.0005	.0015
334	-14.2559	24.8704	5.7051	-.0010	.0027	.0013	.0032
336	-7.2618	27.7030	5.6962	-.0004	.0046	0.0000	.0046
388	14.6669	18.5331	3.8772	-.0007	.0074	.0024	.0079
389	18.9963	14.1306	3.8889	-.0035	.0032	.0011	.0049
390	22.2143	8.6572	3.9384	-.0049	.0031	.0018	.0061
391	23.4857	2.5449	3.8664	-.0015	0.0000	.0010	.0019
392	23.4620	-3.6016	3.9097	-.0035	-.0016	-.0004	.0039
393	21.9397	-9.6622	3.9936	-.0044	-.0029	.0001	.0053
395	14.4633	-19.3591	4.0568	-.0033	-.0048	-.0020	.0062
396	8.9300	-22.4371	4.0496	-.0032	-.0052	.0005	.0062
397	2.4745	-23.8636	4.0007	-.0035	-.0036	0.0000	.0050
398	-3.6498	-23.6817	3.9909	-.0039	-.0055	.0023	.0072
400	-14.9234	-18.9245	4.0324	.0023	-.0053	-.0003	.0058
401	-19.3418	-14.5319	4.0634	.0002	-.0007	.0012	.0015
402	-22.3425	-9.1370	4.0466	.0016	.0005	.0004	.0017
403	-23.7886	-2.9504	3.9939	.0014	-.0024	.0007	.0029
404	-23.6861	3.2663	3.9724	-.0012	.0016	.0027	.0035
405	-22.0934	9.3297	3.9974	.0021	.0007	.0002	.0023
406	-19.0669	14.7255	4.0341	.0026	.0015	-.0013	.0033
407	-14.3015	19.2506	3.9974	.0001	.0010	0.0000	.0010
408	-9.1191	22.1829	3.9967	-.0014	.0028	.0021	.0038
409	5.2617	20.4571	3.0972	-.0037	.0019	.0004	.0042
410	10.2802	18.2257	3.0376	-.0052	.0037	.0015	.0066
411	14.7913	14.7952	3.0349	-.0037	.0021	.0009	.0044
412	18.3238	10.4386	3.0811	-.0051	.0024	.0033	.0065
413	20.1829	5.3761	3.0250	-.0031	.0045	.0002	.0054
414	20.2938	-5.8117	3.0901	-.0054	-.0030	-.0012	.0063
415	18.3794	-10.9193	3.1658	-.0052	-.0031	.0004	.0061
417	10.6783	-18.5521	3.1768	-.0068	-.0024	.0020	.0075
418	5.5329	-20.5244	3.1387	-.0035	-.0032	.0001	.0048
420	-10.5830	-18.7531	3.2174	-.0028	-.0023	.0037	.0052
424	-20.8067	5.4492	3.2090	.0025	-.0008	0.0000	.0026
425	-18.4337	10.4495	3.1174	-.0016	.0019	.0019	.0032

TABLE 5. CONT.

POINT NO.	XT (FEET)	YT (FEET)	ZT (FEET)	VX (FEET)	VY (FEET)	VZ (FEET)	V (FEET)
426	-15.2165	14.8607	3.1418	.0027	.0026	-.0018	.0042
427	-10.6702	18.1953	3.0860	-.0013	.0005	.0002	.0014
431	6.8911	15.5196	2.0021	-.0048	.0039	.0017	.0064
432	10.8641	12.9890	1.9913	-.0045	.0013	.0009	.0047
433	13.9773	9.9180	2.0377	-.0050	.0018	.0010	.0054
434	16.0262	6.0847	2.0345	-.0046	.0022	-.0008	.0052
437	16.0441	-6.9696	2.1193	-.0051	-.0012	.0020	.0056
439	9.9758	-14.1324	2.0765	-.0047	-.0024	.0006	.0053
440	6.0330	-16.2606	2.0855	-.0030	-.0044	-.0001	.0053
441	1.7357	-17.2868	2.0940	-.0038	-.0032	.0017	.0053
442	-2.9019	-17.0769	2.0810	-.0022	-.0049	-.0011	.0055
443	-7.0095	-15.8881	2.0914	-.0049	-.0014	.0020	.0056
444	-10.9568	-13.3404	2.0678	-.0016	-.0024	.0016	.0033
445	-14.0597	-9.9953	2.0632	.0010	-.0030	-.0009	.0033
447	-17.2749	-1.7294	2.0891	.0010	-.0003	.0008	.0013
448	-16.9814	2.6881	2.0486	-.0005	.0008	.0025	.0027
449	-16.0131	6.6580	2.0863	-.0020	-.0006	.0054	.0058
450	-13.2845	10.8682	2.0488	.0003	.0039	-.0002	.0040
451	-9.9944	13.8805	2.0291	-.0010	.0008	.0003	.0013
452	-6.2713	16.0195	2.0560	-.0015	.0030	.0014	.0037
453	-.2596	13.9647	1.3585	.0050	-.0008	-.0006	.0051
454	3.3083	13.0306	1.2577	.0010	.0054	-.0012	.0056
455	6.5152	11.7127	1.2477	-.0048	.0026	.0031	.0063
456	9.5125	9.5686	1.2630	-.0061	.0026	.0016	.0069
460	13.2238	-3.6646	1.3021	-.0043	-.0027	-.0022	.0056
462	9.6416	-9.7695	1.3064	-.0051	-.0007	.0013	.0053
463	6.8199	-11.8582	1.2991	-.0043	-.0015	.0004	.0046
465	-.0455	-13.7469	1.3117	-.0040	-.0019	.0018	.0045
466	-3.5939	-13.4131	1.3376	-.0053	-.0018	.0001	.0056
467	-6.8272	-12.1029	1.3397	-.0052	-.0020	.0017	.0058
468	-9.5147	-9.6799	1.2754	-.0024	-.0007	0.0000	.0025
469	-11.9290	-7.0029	1.3261	-.0005	-.0013	-.0016	.0022
470	-13.0860	-3.7756	1.2824	.0002	-.0030	.0023	.0038
471	-13.7682	-.2365	1.3145	.0021	.0011	.0008	.0026
472	-13.2184	3.3457	1.2892	-.0014	.0019	.0027	.0036
473	-11.8507	6.6897	1.2894	-.0005	.0008	.0006	.0011
474	-9.6473	9.2518	1.2426	-.0015	.0020	-.0014	.0029
475	-7.1238	11.8045	1.3159	-.0030	.0045	.0010	.0056
476	-3.7568	13.1575	1.3020	-.0028	.0023	-.0009	.0036
477	-.6807	9.0315	.5686	-.0007	.0006	.0018	.0020
478	3.8717	7.9198	.5398	-.0040	.0013	.0009	.0043
479	7.2885	4.9304	.5372	-.0069	.0029	.0039	.0085
481	8.0390	-4.0399	.5598	-.0077	.0006	.0022	.0080
482	4.9483	-7.5690	.5712	-.0051	.0005	.0013	.0053
483	.5326	-9.0352	.5703	-.0044	-.0003	.0021	.0050
484	-3.9922	-8.1158	.5681	-.0033	-.0007	.0016	.0037
485	-7.4426	-5.2841	.5791	-.0024	0.0000	.0031	.0039
486	-9.1795	-.7735	.5879	-.0001	-.0010	.0010	.0015
488	-4.8461	7.4306	.5418	-.0010	.0049	.0012	.0052
489	.7984	6.2243	.2692	-.0038	.0019	.0025	.0049
490	3.6205	4.8190	.2478	-.0055	.0032	.0028	.0070

TABLE 5. CONT.

POINT NO.	XT (FEET)	YT (FEET)	ZT (FEET)	VX (FEET)	VY (FEET)	VZ (FEET)	V (FEET)
492	6.2607	-.9179	.2750	-.0062	.0010	.0003	.0063
493	5.1579	-4.0608	.2991	-.0034	.0001	.0022	.0041
494	2.1826	-5.9131	.2767	-.0039	-.0024	0.0000	.0047
495	-1.2278	-6.4761	.3009	-.0032	-.0015	.0020	.0041
496	-3.9507	-5.1682	.2897	-.0054	.0001	.0024	.0059
497	-6.0096	-2.5735	.2911	-.0017	.0006	.0010	.0021
498	-6.5276	.6201	.2969	-.0020	0.0000	.0005	.0021
499	-5.0611	3.5903	.2631	-.0025	.0005	-.0001	.0025
500	-2.4973	5.7894	.2699	-.0033	.0024	.0008	.0042
501	-.0922	-.1033	.0039	-.0058	-.0006	.0038	.0070
512	-23.3696	-1.4711	9.9514	.0045	.0014	-.0012	.0048
514	-17.7334	-1.3639	23.1705	.0048	-.0008	-.0050	.0070
516	-10.0111	-1.9197	38.3170	.0044	.0005	-.0040	.0060
517	-9.9097	1.7514	38.4870	.0047	.0030	-.0053	.0077
518	-14.3555	.8995	30.3175	.0048	-.0005	-.0052	.0071
519	-17.7615	.8133	23.1363	.0062	-.0019	-.0091	.0112
520	-20.5475	.7755	16.3001	.0037	.0009	-.0027	.0047
521	-23.4080	.7097	9.9026	.0041	.0013	0.0000	.0043
550	-3.0323	3.8311	44.4521	.0038	.0006	-.0053	.0065
551	-2.3691	3.7055	44.4564	.0048	.0010	-.0060	.0078
552	2.3234	-3.6872	44.4385	.0047	-.0018	-.0056	.0076
553	3.0123	-3.8353	44.4329	.0062	.0014	-.0055	.0084
602	33.0074	24.5706	11.7560	-.0009	.0080	.0037	.0089
603	40.7573	-6.1072	11.7774	-.0020	-.0004	0.0000	.0021
604	35.8142	-21.2763	12.0481	0.0000	-.0054	-.0019	.0057
606	-6.1472	-40.9018	11.8868	-.0028	-.0067	-.0017	.0074
607	-21.3140	-35.9215	12.1113	.0007	-.0023	.0009	.0026
608	-33.1189	-24.8223	11.8972	.0050	-.0029	.0011	.0059
610	-35.4844	21.1598	11.8357	.0079	.0040	-.0035	.0096
611	-24.7374	33.1501	11.8845	.0043	.0035	.0009	.0057
613	23.6657	22.4717	7.3952	-.0052	.0097	.0030	.0115
614	31.3089	-9.2572	7.3989	.0005	-.0016	-.0019	.0026
615	22.7358	-23.5523	7.4389	-.0061	-.0010	-.0009	.0062
616	-9.3381	-31.5486	7.5189	-.0033	-.0056	.0011	.0067
617	-23.4835	-22.7379	7.4207	.0006	-.0026	.0019	.0033
618	-31.5975	9.0975	7.4956	.0050	.0029	.0006	.0059
619	-22.9624	23.3852	7.4547	.0038	-.0005	-.0013	.0040
620	14.5095	23.9730	5.4509	-.0046	.0022	-.0010	.0052
621	23.9515	-14.5866	5.4561	-.0026	-.0045	.0021	.0057
622	-14.8802	-24.1465	5.5859	-.0004	-.0007	-.0004	.0009
623	-24.1810	14.5902	5.5292	.0052	.0013	-.0034	.0064
624	7.1163	14.8528	1.8834	-.0057	.0016	.0028	.0066
626	-7.2256	-15.2446	1.9749	-.0047	-.0007	.0022	.0053
627	-15.4131	6.9712	1.9872	-.0006	.0019	.0021	.0029
900	5.7239	40.9440	12.0329	-.0015	.0073	.0009	.0075
902	32.9769	24.8814	12.0364	-.0054	.0100	.0023	.0116
903	40.9314	-5.9304	12.0054	.0011	.0001	-.0011	.0016
904	36.1392	-21.1553	12.3681	-.0019	-.0039	.0006	.0044
906	-5.9323	-41.1203	12.1705	.0009	-.0089	-.0009	.0090
907	-21.1808	-36.1641	12.3035	-.0014	-.0054	.0020	.0059
908	-33.2448	-25.1432	12.1150	.0086	-.0057	-.0007	.0104

TABLE 5. CONT.

POINT NO.	XT (FEET)	YT (FEET)	ZT (FEET)	VX (FEET)	VY (FEET)	VZ (FEET)	V (FEET)
909	-41.4135	5.5422	12.2441	.0118	-.0015	-.0037	.0125
910	-35.7355	21.0064	12.0687	.0078	-.0039	-.0021	.0090
911	-25.0691	33.1613	12.1762	.0036	-.0010	-.0005	.0038
913	23.5633	22.8134	7.5287	-.0008	.0085	.0020	.0087
914	31.4827	-9.1732	7.5346	-.0053	-.0031	-.0036	.0071
915	23.0065	-23.5666	7.6742	-.0031	-.0023	.0002	.0038
916	-9.1374	-31.8273	7.6402	-.0019	-.0062	.0012	.0066
917	-23.3991	-23.0024	7.6499	.0003	.0026	-.0004	.0027
918	-31.8204	8.9441	7.6715	.0054	-.0020	-.0030	.0065
919	-23.3100	23.4161	7.6281	.0024	-.0015	.0011	.0031
920	14.4370	24.2964	5.6598	-.0036	.0030	-.0003	.0048
921	24.2187	-14.4918	5.6636	-.0020	-.0038	.0004	.0043
922	-14.7495	-24.4345	5.7442	-.0019	-.0013	0.0000	.0023
923	-24.4895	14.5372	5.6598	.0058	.0016	-.0009	.0061
924	6.9957	15.1861	2.0057	-.0033	.0021	.0018	.0043
926	-7.0909	-15.5514	2.1391	-.0062	-.0013	.0022	.0067
927	-15.7422	6.7654	2.1130	-.0001	.0008	.0030	.0031
928	-2.6994	3.7489	44.5113	.0050	.0006	-.0052	.0073
929	2.6704	-3.7430	44.4651	.0046	-.0013	-.0048	.0068
1003	6.0989	41.1429	12.0143	.0002	.0103	-.0001	.0103
1039	-41.6213	5.8918	12.2570	.0080	.0004	-.0006	.0080

SECTION XII.

REFERENCES

REFERENCES.

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